

THE CYCLICAL NATURE OF DUALISTIC TRENDS IN URBAN DESIGN. HISTORICAL ANALYSIS OF THE CREATIVE ATTITUDES OF SELECTED MASTERS OVER THE CENTURIES

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ABSTRACT

In this article, the authors raise issues of dualistic solutions in urban design and city development. It should be noted at the outset that the very concept of duality is not obvious and is inherently ambiguous. The numerous definitions that exist are very general. We can distinguish several disciplines and scientific areas where the concept of dualism occurs or can appear. At the same time, the definition of each of these phenomena will be different, depending on the area in which it occurs. Hence, the authors have made a far-reaching reduction in the types of dualisms, narrowing the area of research to the creative attitudes of urban planners, philosophers of space, artists, and architects in historical terms. The aim of the search for dual features in spatial forms is to find the key to a better understanding of the laws governing urban planning and urbanisation processes. Verification of opposites and dual characteristics takes place on three levels: community, form, and function. The urban conditions that occur contribute to the creation of new qualities and new spatial forms, which help redefine the city and its development. The paper is based on the thesis that dualism is a permanent feature of spatial solutions (a recurring feature) across the spectrum of history.

Keywords: urban space, spatial dualism, urban planning, history of urban structures, dichotomy in urban space

INTRODUCTION

In terms of an urban-spatial issue, it should be noted that dual divisions have accompanied both the city and its architecture since their beginnings. When thinking of a city, it is important to remember that it is a conglomerate of many different activities, connected by many definitions. There is no single definition of a city. Aristotle proclaimed that ‘a city is people’, not just the walls, buildings, or infrastructure.

At the dawn of the modern city, the minimalism of the functionalists was a proclamation of a new vision of the city – a vision, however, that was subjective, narrowing the multifaceted, interactive nature that is the city. In response to the famous words of the functionalists related to the miniaturisation of housing needs, but also urban needs more broadly that ‘less is more’ (proclaimed by Mies van der Rohe), more than 30 years later, Robert Venturi retorted from a postmodern position that ‘less is boring’ (Venturi, 1966), and

architecture – the shaping of urban space – should result from contrast and the search for duality, for example, the interior and the exterior.

On the other hand, according to sociologists of space, such as Alexander Wallis and Florian Znaniecki, a city is a cultural area. It is a particular form of space ‘which is the subject of a long-term and intense interaction between the material, aesthetic, and symbolic values contained in it and the urban community’ (Wallis, 1979, p. 17).

In his book, sociologist Richard Sennett points out another dichotomy – rurality and urbanity (Sennett & Konikowska, 1996). Referring to the territorial structure, Sennett believed that: ‘a city is a human settlement in which strangers are likely to meet [...]. In such an assemblage of strangers who come into daily contact with each other, there is an audience problem similar to that faced by an actor in the theatre’ (Sennett & Jankowska, 2009, pp. 72–73). Thus, referring to Aristotle, who wrote that: ‘a city is made up of people of different kinds; people alike cannot make a city’ (after Sennett & Konikowska, 1996, p. 46).

Also, Christian Norberg-Schulz, in his considerations, develops the theory of architectural space and the theory of existential space (Norberg-Schulz, 1971), describing the characteristics of space on the basis of dualism. The same is true of Cartesian dualism. We should not forget about the most important statement that space should be understood dualistically, as Descartes wrote. His *res extensa* and *res cogitans* presuppose the existence of two independent primeval elements: immaterial and material substance, to be developed by subsequent generations of philosophers. According to 20th-century considerations of space and place: ‘Extensibility along, across, and into constitutes the nature of bodily substance; and thinking constitutes the nature of thinking substance. [...] Thus, for example, nowhere else but in an extensible thing can shape be grasped, and motion only in extensible space; similarly, nowhere can imagination or feeling or will be grasped but in a thinking thing. But conversely, one can grasp extensibility without shape or without motion, and thinking without imagination or without feeling, and the same is true of the other things’ (Descartes, 1685).

Urban-spatial issues that have been discussed largely concern the city. In his reflections on the essence of architecture and urbanism, which bind the concept of systemic order, Immanuel Kant emphasises the division that occurs between the concepts of architecture and urbanism. By introducing, as Kazimir Severinovich Malevich later did, but in a slightly different context, the concept of architectonics, he gives the notion of city architecture a new dimension to the relations that arise between the idea of architectonics of the mind and the concept of architectural space, the existential space of its life (Kant, 1957, p. 577).

THE MAIN GOAL OF THE RESEARCH

The purpose of this article is to point out the characteristics of dualisms in urban space among the many theories and artists representing them. It is not a matter of categorising the concept in terms of space and urbanism, as it is expressed in the title, but far more broadly, considering certain borrowings, searching for common elements with modernity, beyond historical divisions. The narrative adopts a chronological approach with a breakdown of the typologies of dual divisions occurring in each historical period.

DUALISMS. THE PROBLEM OF DEFINING THE PHENOMENON

The fundamental problem in addressing the subject at hand is the difficulty of defining the phrase itself – dualism. The word itself has a Latin root – dualism – which translates as dual or two-fold, which should also be interpreted as heterogeneous, incompatible with each other as a whole. This is a very broad, multidisciplinary expression and phenomenon, present in the literature of many areas of science.

Dualism as a term – an attempt at definition and redefinition

The basic division of the expression that is dualism is based on its relationship to man as an entity. In general, we can distinguish two trends: dualism of man and dualism of man's environment.

All philosophical ideas (and religious systems) from Antiquity to the present operate within the framework of the dualism of man.

These will be the dualisms of Plato (mental and sensory cognition), Aristotle (every human being consists of matter and form), René Descartes (soul and body are independent entities), Immanuel Kant (division between empirical and transcendental cognition), Martin Heidegger (a human being is distinct from all other entities), Max Scheller (the presence of the world conditions the existence of the human person), Roman Ingarden (the division between the 'me' of the object and the 'me' of the human being), Kitarō Nishida (dualism in Zen philosophy), radical dualism (the concept of a 'good' God and an 'evil' God – Manichaeism), or Friedrich Nietzsche (the thesis that the world is the will to power).

Within the dualism of man's environment, several dualisms can be identified concerning various spheres of human life. These will be dualisms such as: political dualism (two conflicting goals of life – common good and individual good), economic dualism (two economic zones of Europe in the 16th–17th centuries), spatial dualism (space is not homogeneous), or corpuscular-wave dualism (diffraction and interference).

Dualism in urban planning – definition – exclusions adopted by the authors

When considering the spatial (or urban) dualism mentioned in the subsection 'Dualism as a term – an attempt at definition and redefinition', which will be the basis of this discussion, we need to realise its further internal divisions. Thus, the simplest to distinguish and confront in the space of cities is the division (1) into old and new districts (Carcassonne). Such a division applies to the overwhelming number of historical cities that developed over hundreds and sometimes thousands of years. Today, for the most part, they are capitals of European cities, important tourist destinations, significant commercial centres, or ports.

Thinking about dualisms in space, it is impossible not to also notice the numerous groups of dual cities, i.e. cities divided by a boundary line (2), because of political and treaty solutions. Many such cities have appeared, especially in Europe in the 20th century. These include, for example, such city pairs as Guben/Gubin, Zgorzelec/Görlitz, Frankfurt/Slubice, Kostrzyn/Küstrin-Kietz, Cieszyn/Ceský Těšín, Komarno/Komarom, Gorizia/Nova Gorica, Nicosia/Lefkosia and many others.

When considering dualisms in urbanism, one should also add the elements of the natural environment (3) resulting from the choice of location for the construction of cities and the unique physiography of the terrain associated with this place (Sorrento), or the phenomena of tides (Mont Saint-Michel). It is also possible to distinguish cities built in characteristic bends of rivers (Kamenets Podolsky). Further, one can mention cities separated by a river, and these, after all, are numerous, or, finally, cities on islands or lagoons.

The authors of this article considered that all three above-mentioned groups (1, 2, 3), are dichotomies resulting from divisions between historical and modern districts within a single urban organism, as well as political and treaty solutions, or divisions resulting from natural conditions and should be excluded from the research on the issue at hand, as they are devoid of intended human creation, i.e., compositional value consciously proposed by the designer-creator.

Dualism in urbanism – a proposal for a narrower definition

The authors of this article propose a consciously and deliberately narrowing definition of the phenomenon of dualism, as an urban-spatial solution, reduced to two main currents. Both currents are related to the activity of man as an artist, the creator of urbanism, from a historical perspective. The first unites outstanding figures from the world of urban planning theory, philosophers of art, and philosophers of space, while the second current unites outstanding figures from the world of executive practice, mainly urban planners and architects.

RESEARCH MATERIALS AND METHODS

Current state of research – discussion of the main works of literature on the subject

Dual issues have been present in works by many authors from different historical periods (Fig. 1). In the matter in question, we distinguish four main currents, which include the works and figures highlighted below:

1. Theoreticians and practitioners of urban planning and architecture: Vitruvius, Theo van Doesburg, Mies van der Rohe, Frank Lloyd Wright, and Le Corbusier.
2. Sociologists and philosophers of space: Martin Heidegger, Edward Hall, Kevin Lynch, Florian Znaniecki, and Janet Abu-Lughod.
3. The utopians of the social idea, most importantly: Thomas More, Charles Fourier, Robert Owen, and Jean-Baptiste André Godin.
4. The final category includes political scientists and historians who describe the socio-political relations and issues in the economy and geography of cities of various historical periods. The following authors and their works should be mentioned: Friedrich Engels, David Harvey, and Jane Jacobs.

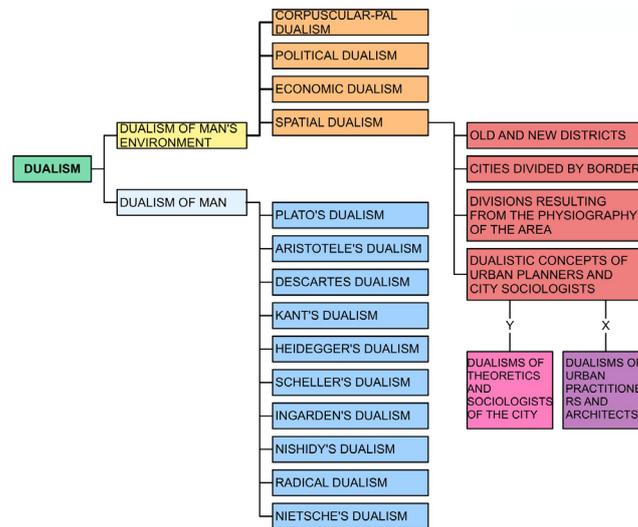


Fig. 1. Dualisms – different forms and divisions, basic categorisation

Source: own work.

Purpose of the paper and main research questions

Dualisms in built-up space (urban-architectural space) are not a homogeneous phenomenon. They are often the result of the coincidence of multi-criteria factors arising from the realities of time and place. In the rich literature on the subject, there is no uniform formula for categorising this phenomenon. The purpose of the paper is indeed to introduce such a categorisation and to identify the relationships and areas of influence and interaction between different forms of spatial dualisms. The main research questions formulated by the authors of this paper focus on two issues. The first is the following question: Is a coherent categorisation of the phenomenon in question possible, and if so, according to what means is it possible to build it? The second issue addressed in the paper is the validity of the historical perspective for demonstrating the aforementioned relationships between the proposed categories.

Form of the paper

The text presented is an overview paper. The authors have identified several dual phenomena from a time perspective, from Antiquity to the present. The entire historical period has been divided into seven conventional stages, which have their counterparts in the subsequent historical periods and styles, such as Antiquity, Middle Ages, Renaissance, and Baroque, up to the present. In each of these seven stages, the team of authors arbitrarily selected the most characteristic examples of spatial dualisms, from two to four cases. These are described in the various subsections of this paper. The conclusions section starts with information presented in one table and a diagram.

Work methods

The main work methods are qualitative methods and a mixed–triangulation method. More specifically, these will be case studies, the method of analysis and logical construction, the method of literature critique, the method of observation, the deductive method, the comparative method, and the method of synthesis.

THE SEVEN STAGES OF DUALISMS IN SPACE-TIME DISCOURSE

Pragmatism of functionality

Dualism is inherent in our world and has been an interesting issue addressed by many philosophers and thinkers since ancient times.

The Greeks refer to it as *τόπος* (place), *χώρα* (space) and *κενόν* (vacuum). ‘Aristotelian space’ (Jammer, 1957, p. 20, after Heller, 1993), specified the definition of place as the location of a body in space – ‘the immediate and immovable boundary of the surrounding body’ (Reale, 1990, p. 297), thus providing the concept of finite space.

Rational thinking is especially close to the philosophy of ancient writers on space theory. Modern generations (Y and Z) are characterised by pragmatism in making and implementing life or career decisions. This fact is emphasised by many contemporary sociologists (Berg, 2006, after Hildebrandt-Wypych, 2009). A trans-historical axis of similarities is thus emerging before our eyes. Today’s youngest adults and ancient writers manifest a similar way of thinking, but a very different value system. It is worth noting a couple of dual elements expressing this pragmatism in ancient space theory. Marcus Vitruvius believed that a city is simply one big house. We build it just like any other house, with the difference that a city is much more complicated and extensive. And here, Vitruvius turned out to be much more conservative than the father of world urbanism, Hippodamus of Miletus, who lived a few hundred years earlier. For him, urbanism (the science of building cities) was not the same as architecture (the art of building cubic structures). It is generally believed that Vitruvius must have been familiar with at least parts of *Treatise on the Formation of the Polis* by Hippodamus of Miletus, such as those preserved in the writings of his friend Aristotle, since his work *Ten Books on Architecture* contains several very similar elements. Both stated that the hierarchical nature of space is the main factor in building its harmony and the designer’s composition - the only one legible, in their opinion, to any user of space. On the other hand, the pragmatism of the Romans was reflected in Vitruvius’ idea to depart from the modularism of Hippodamus, especially when it came to the shape and functionality of the forum – the ancient Greek agora. It was no longer a 1 : 1 ratio of the square’s walls but evolved to 1 : 1.5 so that more commercial functions such as basilicas, lararia, and macella could utilise it. The Romans also departed from Greek modularism in many other areas of space shaping by establishing, for example, the archivolt.

The contrast between Roman and Greek divisions is shown by the Hippodamian city divided into districts, each with a local centre, as is the case, for example, in the city of Millet designed by Hippodamos. Each district has its own modular grid, the size of which reflects the social and professional status of the residents.

The districts took advantage of the different physiography of the area, which was followed by divisions, an element completely absent in Vitruvius.

Vitruvius's dualism, in turn, was revealed in the optics of a bipolar downtown. These two poles were centred around ensembles of different urban functions. The first pole combined administrative and commercial functions (forum, treasury, basilica prison, temple of Mercury). The second pole contained functions related to the ambitions and needs of shaping a physically and intellectually healthy lifestyle of the residents (theatre, circus, gymnasium, temple of Hercules).

Anthropomorphism – the language of humanism

Along with the humanism of the Renaissance and the new interest in man, there was also a new vision of the space surrounding us at the scale of the city, province, or region. Alongside the search for regularity of form (the path to simplicity and purity of layout), there was, at the same time, an affirmation of the proportions and symmetry of the human body as perfect and the ascribing of layout features and values to them (Alexander, 1973, p. 10).

This anthropomorphism appeared mainly symbolically, but also sometimes broadly, more literally, eventually reaching – for some theorists – even for physiological-anatomical comparisons.

The creators of this period used the importance of similarities even where, rationally, it may have been difficult to imagine them. Underlying this anthropomorphism was a new approach to understanding the three-dimensional world, where complementarity and hierarchy successively reduced the elements of repetition.

For example, it is necessary to point out the distinctive double voice of Francesco di Giorgio Martini and Vincenzo Scamozzi. Martini assumed an anthropomorphic functional theory of the city, which derives from Vitruvius's golden ratio, where the human figure is contained in the plan of a circle – the ideal figure. However, he is not concerned with formal relationships and references to individual parts of the human body, but with symbolic relationships. In the described metaphor, the head of the city is the castle, the place of the belly is the central square, and the cathedral is the heart. The limbs act as defence towers. The analogies are all too obvious; the castle constitutes the existence and secures the possibility of development of the city, and the heart ensures blood circulation, i.e. the correct level of social relations, and the other organs are necessary not for the existence and functioning of the urban organism, but for competing with other cities. Similarly, as well as the bipolarity resulting from anthropomorphism, the complementarity of the various functions of the human body (limbs, organs of sight and hearing), the city also contains the principle of subsidiarity. Giorgio Martini is thus the forerunner of complementarianism in the concept of the city (Fig. 2).

Vincenzo Scamozzi, on the other hand, looking for dual elements, notices the fundamental changes in the structure of cities from ancient times to his time (late 16th century and early 17th century). His theory of the anthropomorphic construction of the city differs significantly from Martini's concept (Zarębska, 1970, p. 150). Yet another aspect of his anthropomorphic treatment of architecture is found in his comparisons of city streets to the veins and arteries of the body, whose rank and importance are strictly defined and differentiated. The buildings, individual palaces and squares of the city correspond to different organs, and their shape, size, and location depend on their role.

Anthropomorphism in city planning was also present in Poland, in the only fully realised European example of the ideal city of the Renaissance era – Zamość. It was the capital of the Zamoyski magnate family. Zamość was designed by the prominent Italian architect Bernardo Morando. Construction spanned the years 1600–1651. The idea was to combine two regular figures – a rectangle and a regular hexagon – into a single whole. The project also considered the improvement of security conditions, adding a bastion layout to the original design, based on the natural floodplains of the Łabuńka river. Anthropomorphic references can easily be seen in the structure of the interconnected figures, where the centre of the rectangle is the Zamoyski Palace – the most important point and the head of the entire layout.



Fig. 2. Fortified Man – a 15th-century city concept by Francesco di Giorgio Martini

Source: di Giorgio Martini (c. 1470), © Turin Biblioteca Reale.

Below the palace are the cathedral (collegiate) and the academy – two lungs of spiritual and intellectual heritage – *fides et ratio*. The central part of the hexagon is occupied by the main city square with the dominant city hall, symbolising the heart, next to which is the market – a melting pot of urban activity, reminiscent of a nutritional system.

Between geometry and symmetry – in search of the perfect form

The regular form of a circle or regular polygon was originally dictated for defensive purposes in the ancient period. Although the first treatises of modern authors still raised the value of the regularity of the layout for the defence of the city, especially to support its bastion solutions, nevertheless, there were more and more attempts to develop an ideal city layout, based solely on the search for the perfect form. The main representatives of this trend in the Baroque and Enlightenment periods were representatives of radically different visions of the functioning of man in space.

On the one hand, there were the creators, working in the service of French absolutism (here specifically Cardinal Richelieu), such as Jaques Lemercier – royal architect since 1615, creator of the Château de Richelieu and the Palais-Royal. Widely considered one of the finest examples of a Baroque city, Richelieu's city was based on an orthogonal structure, where a centrally derived axis connected two twin squares. The symmetrical solutions emphasised axuality, which in turn emphasised the hierarchical nature of space, as well as power.

Much further from absolutism, we find two later figures – Étienne-Louis Boullée and Claude-Nicolas Ledoux. The former, active in the Classical period and fascinated by the first successes of mankind associated with the Industrial Revolution, believed that architecture must face the challenges of the new era. It was his universalist belief in the capabilities of inventors that drove his search for the perfect form and physical realisation. It is in this spirit that he designed Newton's mausoleum-cenotaph – a sphere-shaped object

of monstrous size and scale. This physical form never came into existence; it remained a utopia, but it had a great influence on later generations and artists, especially those of the late 19th century and early 20th century.

While Boullée was part of the universalist trend, the victory of man over nature (the invention of the steam engine, the development of the railroad), Ledoux, working at a similar time, was looking not so much for the perfect form to emphasise the universalism of the message, a tribute paid to humanity, but in general to reconstruct society according to a new formula, not based on the traditional values of the family or the Christian values dominant in Europe at the time.

À rebours city-states – utopians of the social idea

The crisis of urban overcrowding, triggered by the Industrial Revolution, led to the development of numerous utopias, bringing hope for a rearrangement of social relations and, in this context, also functional-spatial relations. In response to the overcrowding of large cities and the large scale of social pathology, the spatial theorists of the time brought to life numerous concepts of new settlement forms, whose main goal was to generate a new social order. Such a form of morality play on the life of a new, ideal republic-utopia is known from the novels of Thomas More. He is regarded as the first socialist since his vision contains a profound egalitarianism at its core. He is the first and one of the few forerunners of the Just City, a concept developed in modern times by Susan Fainstein. In his understanding, the state should consist of cities providing identical opportunities for development, which, as we know, is not a simple thing, if at all feasible. Therefore, his republic consisted of cities identical in size (number of inhabitants), as well as in functional and spatial structure. The urban layout was based on a regular quadrangle with an orthogonal arrangement of streets and building quarters (More, 1912, pp. 87–116). The quarters were enclosures, inside of which there were gardens. In the city-state of Utopia, there was no cash circulation, and the most expensive plots of land in the city were intended for holiday celebration houses. Thus, in place of the worship of money, we see here an affirmation of the community, the family, as well as the individual resident. It is also an affirmation of the city, one of the strongest in the entire history of urbanism. One example is the strictly recorded number of cities in Utopia – 54. The obligation to maintain this number was more important to him than territorial expansion – colonial acquisitions, which he accepted without counting their costs. The only explanation is the symbolism of the numbers he used. We have families of 24 people here, and cities of 144,000 inhabitants (6,000 families). These numbers, it seems, refer more to salvation history, the interpretation of the meaning of numbers in the Old Testament and the Apocalypse of St. John to urban planning.

Thomas More paved the way for subsequent treatises on the ideal city-state in the era of rival imperial states when these solutions were already an anachronism. Due to the presence of numerous dual solutions, it is impossible to omit Charles Fourier's *Phalanstery* and Robert Owen's *New Harmony*. Fourier, like Ledoux, attempted to create a new social structure based on his own functional-spatial formula of novel settlement units. In Fourier's case, it was the phalanstery – a people's palace inspired by Baroque imperial residences. Unlike More, Fourier based his settlement structure on the cohabitation of many families and single people with extremely different personalities and temperaments. Within the framework of the phalanstery, he favoured social selection devoid of the existing hierarchy and traditions and was to be based without priority for families. The strongest dual context here concerned the difference between the phalanx and the phalanstery. The phalanx, or small commune, resembling the size of modern French communes, was based on agricultural production on 20 km² of farmland, whereas the phalanstery spire was based on a magnate or royal residence. Fourier's experiment was never realised, but years later, in the second half of the 19th century, Fourier's inspiration found an imitator – Jean-Baptiste André Godin. His *familistère* concept – expanded to include a plant for metallurgy and iron products – operated for several decades until the outbreak of World War II. Godin's concept did not include social experiments and, unlike the phalanstery, was based entirely on workers functioning within a traditional family.

Robert Owen was active, like Godin, a little later than Fourier, in the 19th century, and was one of the few significant polemicists of Malthus' theory, which claimed that the rate of world population growth was outpacing the capacity to produce the food necessary to sustain it. The early 19th century was a time when Europe, devastated by the Napoleonic wars, was experiencing severe food shortages. In conclusion, the most suitable settlement unit, in Owen's opinion, was to be an industrial-agricultural settlement, producing food and food products. Many such enterprises would certainly reduce food prices and allow masses of unemployed people doomed to poverty to move out of the industrial cities. The production base for each such settlement was to be 480 ha of land, while residents would live in settlements in the form of a vast parallelogram, made up of terraced housing segments of two to four storeys. Many of these utopian solutions have guided the real transformation of the European creative city from the 18th century through to the 20th century (Florida, 2019, pp. 28–32).

Masters see dually

‘Space-time launched the modern movement in architecture’
(Giedion, 1967)

In the program of Theo van Doesburg, one of the key representatives of the De Stijl group, we find a description of the impression of the idea of space as an entity with four or more dimensions. He embodies the central problem of visual arts when he points out: ‘The new architecture considers not only space, but also the magnitude of time. Through the unity of space and time, the architectural exterior will acquire a new and completely plastic aspect [...] The new architecture is anticubic – it does not attempt to fit all functional spatial cells into a closed cube, but designs functional spatial ceilings (as well as overhanging surfaces, balconies, etc.) from the centre of the cube outward.’ (Gropius, 1971, p. 78). Doesburg's approach to redefining the concept of architecture was based precisely on dualism, concerning form without concept, a substance without shape, or the simultaneity of interior and exterior.

Three concepts of space competed within Bauhaus: those of Walter Gropius, Mies van der Rohe, and Laszlo Moholy-Nagy (Pevsner, 1936, pp. 142, 146–149). According to the first of the masters, it is the category of understanding the surrounding world through the prism of the soul, mind, and senses, which, according to Mies van der Rohe, defines most perfectly the return and ennoblement of craftsmanship as a new renaissance in art and also in architecture, where the material became a new model, a new body, and, thanks to the ‘human breath’ – perfect. Moholy-Nagy went even further by getting very close to the Suprematists when he claimed that the concept of space also included architecture and the relationship between the position of bodies. In other words, with each of them, there was an additional synonym, attribute, or context of space which redefined it. These attributes, inherently complementary, paradoxically created a bipolarity of the phenomenon (Bahnam, 1960, p. 189).

We cannot forget to mention the two prominent figures of modernism, Frank Lloyd Wright and Le Corbusier, in this comparison, with their wildly different perceptions of dualisms in spatial contexts. Le Corbusier proclaimed the ‘city in the park’ idea of a natural rapprochement – bordering on an impressive rivalry – between the forces of nature and the power of human thought (Jencks, 1973b, pp. 114–118). He believed that man would meet this rivalry with the novelty of structures, the possibilities of materials, and the aesthetics of glass, steel, and concrete (Banham, 1960, pp. 247, 251–252). By design, he wanted an anonymous city where everyone benefits from everything, where people live like a fraternity, working for the common good, while Wright built his Broadacre City with the idea of a society composed of neighbourhoods based on property, similar to the one that shaped the pioneers, the conquerors of the West. Wright's city is immersed in the greenery of individual plots the size of an acre, whereas in Le Corbusier's case, there are no private plots at all (the modern city and the radiant city). The dichotomy also grew out of Le Corbusier's attempt to free man from the excess of responsibilities involved in handling space. He believed that the pace of life compelled

minimalism in the realm of both functional and surface areas of living spaces. Wright, on the other hand, saw the future not so much in minimalism, but in new infrastructural solutions, such as new forms of public transportation like aerial cabs (Jencks, 1973a, pp. 368–372).

Space and location in the discourse of philosophers of space

Among philosophers of space, especially modern philosophers, there was a belief in a dual understanding of it. It was, on the one hand, three-dimensional Euclidean space understood as a place occupied by material bodies, in which emptiness is possible and necessary. On the other hand, it was space as a mentally visited place.

The late 19th century and early 20th century initiated wide-ranging discussions about space and place. At that time, a new field of phenomenology emerged, which began to emphasise the importance of space in terms of the place ‘between things’ (in Husserl’s case). Heidegger develops this concept and speaks of *Räume*. Here, for the first time, the phenomenon of tangibility appears and takes on a new face, a new expression which is room and space (from the German *Räume*): ‘The spaces (*Räume*) in which we pass every day are arranged (*eingeraumt*) by places (*orte*), the essence of which is grounded in things like buildings’ (Heidegger, 1994).

Heidegger’s dual views of interior and exterior, including his most important work (Heidegger, 1994), also contributed to the development of the concept of space in an architectural context, for he argued that ‘the relationship of man to place and through places to spaces consists in inhabitation’ (Heidegger, 1994, p. 333). A continuation of this thought can be found in German philosopher Otto Friedrich Bollnow, in whom the concept of *Geborgenheit* appears, and in Edward Hall, the concept of *Eigenraum*, meaning territoriality. Bollnow’s existential considerations are based on the relationship between man and space. ‘Man lives (in a certain place that belongs to him) in space’ (Bollnow, 1963, pp. 499–514), developing the concept of space by referring to the main dualism – interior and exterior.

Hall, on the other hand, writing about space, uses the term *Eigenraum* (territoriality). For him, it is associated with a certain framework – ‘an individual claims a certain area, defends it from the representatives of his species [...] creates a certain framework in which everything is done, and these are places for learning, places for playing, safe hiding places’ (Hall, 1990, *Note 5*). At the same time, Hall believes that humans live simultaneously in different spaces, which leads to experiencing different imaginations of the same space, and each imagination is based on a different sense.

Kevin Lynch, on the other hand, focuses on the experience that arises from the relationship between an inhabitant and a specific area in which he moves – ‘this image is a product of immediate sensations and memory of past experiences’ (Norberg-Schulz, 1971, p. 15). On this basis, Lynch created an imaginary map based on the division of the environment into five elements such as landmarks, nodes, paths, edges, and regions. ‘The world can be organised around a set of focal points, broken into named regions, or connected by remembered paths.’ (Lynch, 1960, p. 7).

The renowned city sociologist Florian Znaniecki talks about space conditioned by cultural aspects of a symbolic nature. These spaces, which Znaniecki refers to as ‘spatial values’, are diverse ‘they are, for example, occupied or empty places, spacious or cramped interiors and, in contrast, “exteriors” – residences, neighbourhoods, centres, borders, measured areas, non-measurable spaces, etc. [own transl.]’ (Znaniecki, 1938, p. 89). Each is a component of some non-spatial system of values, in relation to which it has a specific content and meaning. It can be a religious, aesthetic, technical and creative, economic, or social system. Moreover, the space experienced by humans is diverse and changeable.

Ewa Rewers introduces a new conceptualisation of urban issues, and sees the city as a place of traces and voids ‘the hermeneutics of the trace can only be thought of if we prove that beyond language, however, lies the area of the unspeakable and that it is the traces we leave behind and found by others that tip the suspicion of its existence [own transl.]’ (Rewers, 2005, p. 28).

In the context of dualisms, they are considered by many theorists to be naturally coexistent. Norberg-Schulz describes them in an existential context – ‘the notions of proximity, centrality and closure thus work together to create a more concrete concept of being, a concept of place – and place consists of the basic elements of existential space.’ (Norberg-Schulz, 1971, p. 91). Thus, he refers to the theories of Edward Hall, Otto Friedrich Bollnow, and the works of Dagoberto Frey, Rudolf Schwarz, Jean Piaget, and Kevin Lynch.

Dualisms in the scale of the urban interior

Space in urbanism is also a simple urban interior, such as a square or street with a specific landscape context surrounding natural or built objects. Paradoxically, it is the dualisms used here that raise the dynamics of the message, and make the obtained dimension of the cultural landscape of the interior more expressive, rich, more easily remembered, and sometimes shocking. Many artists use this effect when designing spaces for their projects of commemorative places and ensembles. Artistic street design concepts and street art projects, as well as other artistic events and street theatres, function based on consciously introduced dualisms (Fig. 3).

Both Renzo Piano and Richard Rogers built according to this convention, erecting the famous Beaubourg in Paris. Another example is Charles Moore’s Piazza d’Italia (Jencks, 2011, pp. 56–58). Both buildings were constructed in the mid-1970s (1976) and have a narrative of contrast. Following a wave of social protests, France, under Prime Minister Georges Pompidou, needed a building that would express the power of France at the time in a peaceful or even pacifist manner. The chosen team accomplished this task perfectly. The result was a building and plaza in the centre of Paris (dedicated to Pompidou) the size of two quarters of the historical development. However, it does not resemble, in any way, the Paris of Haussmann’s renovation. It definitely departs from the convention of the development structure perpetuated for generations, but it is also not a typical example of modernism encapsulated in Le Corbusier’s five theses. Perhaps this is because it was created after 1972 and the demolition of the Pruitt-Igoe estate in St. Louis, which was the end of dogmatic modernism (Jencks, 2011, p. 27).

Following their own path, the authors here used a game of contrasts, deliberately defining a series of dualisms within the designed ensemble as a new definition of the classical principle of compositional hierarchisation of space. Thus, we have two connected quarters of a historical development. However, they are not constructed in the traditional way. Half of them form a building, while the other half is a square preceding the building, filled with cobblestones and numerous tubes resembling powerful air intakes for internal ventilation. The museum itself (Centre Georges Pompidou) is the first building in history without a façade.

A similar game of dualisms to achieve essentially similar goals was proposed by Charles Moore in the realisation of Piazza d’Italia. Here, the role of the historical structure is played by the modern downtown of New Orleans, built in a modernist style, arbitrarily devoid of detail, with pure form. Here, where we would expect another ‘success’ of pure form, the author surprises us with a postmodern game of irony, embedded in the deep historicism of European architecture, specifically the architecture of Roman antiquity. This urban public square announces the American Italian Cultural Center (AICC), which is located there. A game of contrasts emerges, which includes not only the powerful difference in scale of the adjacent buildings, but also in colour and form. Moore uses bright sepia and ochre, showing the rhythm of numerous arcades with irreverently modified architraves, an altered role of metopes and triglyphs, and romantic repetitions of archivolt. The result is one of the most perfect realisations of the ideological program of postmodernism.

The appeal to dualism need not be as spectacular as in the two examples above. It can be much more modest, for example, at Franklin Court in Philadelphia. It is located within Independence National Historical Park in Pennsylvania. The site where Benjamin Franklin’s home once stood is marked only by the outline of a metal profile. In this way, no interpretation is imposed on the user of the space. The concept allows the visitor’s full attention to be shifted to Independence Hall, where the Declaration of Independence was adopted in the late 18th century.

	Start dates	End dates	A historical figure or city or place as the subject of the formation of the dualistic concept	Thematic group considering historical succession
1	510 pne	443 pne	Hippodamos z Miletu	Pragmatism of functionality
2	76 pne(?)	14 ne(?)	Marcus Vitruvius Pollio	
3	1439	1502	Francesco di Giorgio Martini	Anthropomorphism of the Renaissance
4	1548	1616	Vincenzo Scamozzi	
5	1540	1600	Bernardo Morando	
6	1585	1654	Jacques Lemercier	Between geometry and symmetry
7	1728	1799	Étienne-Louis Boullée	
8	1736	1806	Claude-Nicolas Ledoux	
9	1478	1535	Thomas More	Utopians of the social idea
10	1772	1837	Charles Fourier	
11	1771	1858	Robert Owen	
12	1817	1888	Jean-Baptiste André Godin	
13	1883	1931	Theo van Doesburg	The masters see dually
14	1867	1959	Frank Lloyd Wright	
15	1887	1965	Le Corbusier	
16	1886	1969	Ludwig Mies Van Der Rohe	
17	1882	1958	Florian Znaniecki	Space in the discourse of philosophers
18	1889	1976	Martin Heidegger	
19	1926	2000	Christian Norberg-Schulz	
20	1914	2009	Edward Hall	
21	1972	Centre Pompidou	Renzo Piano,	Dualisms of the urban interior
22	1977		Richard Rogers	
23	1978	Piazza d'Italia	Charles Moore	
24	1988	Falkestrasse	Coop & Himmelblau	
25	1995	Reichstag	Christo (Wladimirow Jawaszew)	

Fig. 3. Historical figures and the subjects of the formation of the dualistic concept

Source: own work.

In almost the same period, there were artists operating with large spatial forms as a means of artistic expression. They based their work precisely on the construction of impressionistic spatial dualisms. The most prominent among them was Vladimirov Yavashev, who used the pseudonym Christo. In his most famous works, we can notice characteristic large-scale, tight, almost ‘postal’ packaging of cubic structures, which are carriers of historical tradition. The idea was to use the simplest, neutral texture of the material from which the packaging was made. This material did not carry any meaningful content, exactly as is the case with postal packages. In this way, Christo achieved the impression of packing a spatial object before travelling, shipping, or selling it. This effect illusorily deprived the place of the permanent location of structures and buildings with a significant role in European history, such as the Roman aqueducts, the Arc de Triomphe in Paris and the Reichstag building in Berlin. In the case of the latter, the emotional message of stopping in time was clearly related to the return of the parliamentary function of the building after German reunification. At the same time, it was meant to represent a repudiation of the grim history associated with the building during the Third Reich. Christo’s work was intended to provoke reflection on the values and material culture of cities, and on the structures that constitute Europe’s historical heritage (Fig. 4).



Fig. 4. President of the Bundestag, Prof. Dr. Norbert Lammert, with Christo on Wednesday, 25 November 2015; Vladimirov Yavashev's (aka Christo's) Wrapped Reichstag

Source: © DBT/Melde 2015.

Alienation in relation to historical context was, one might say, quite fashionable in the late 1960s and early 1970s. All the projects of the ARCHIGRAM group, for example, appeared on this basis (Sadler, 2005, p. 47). Other examples of projects on the scale of urban interiors using dual solutions to enhance their impact and impression layer can also be observed. The first departure from the traditionally understood interior towards artistic street design concepts was the famous postmodern remodelling on Falkenstrasse by the Coop Himmelb(l)au group in a 1983 project in Vienna (Jencks & Kropf, 2006, pp. 286–287). This created a special place, living with its own memory on the mental maps of every user of the space. Here, the contrast was not only intentional, but even constituted a new spatial expression as an immanent feature of the project itself.

The same is true of street art, which enters urban spaces in neglected, featureless places, where the similarity of structures and forms does not allow a place to develop its own identity.

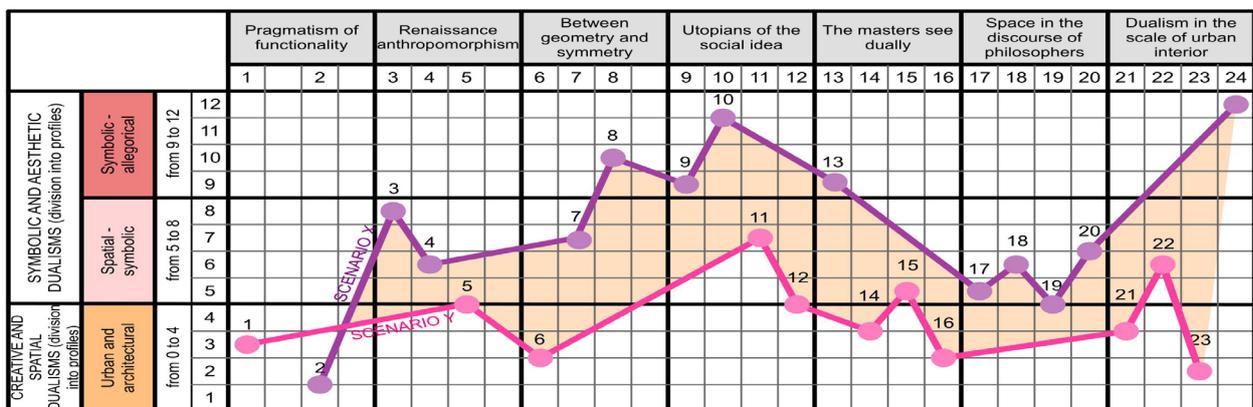
In the 21st century, we can also see a breakthrough in this regard concerning commemorative places and spaces. Here, we have several dualisms concerning both the form, opposing metaphors, the active role of the environment (The Diana, Princess of Wales Memorial Fountain by Gustafson Porter + Bowman, London, UK), and the texture of the materials used.

Almost all museums built after 2000 are based on the new role of contrasting messages, such as closures versus openings, linear or point versus area layouts (the Pentagon Memorial by Julie Beckman and Keith Kaseman, Arlington, Virginia, USA), colour contrasts (the Poppy Plaza by Marc Boutin Architectural Collaborative and Stantec Consulting, Calgary, Canada) built versus natural forms (the Memorial to Victims of Violence in Mexico by Gaeta Springall Architects, Mexico City, Mexico), regular and irregular (the Space Mirror Memorial by Holt Hinshaw Pfau Jones, Merritt Island, Florida, USA), and symmetrical and asymmetrical.

DISCUSSION

The main framework of the concept – description of the diagram

The attempt at categorisation is illustrated in detail in Figure 5. The concept adopted by the authors to organise spatial dualisms involves categorising the phenomenon described in the chapter, ‘The seven stages of dualisms in spatial-temporal discourse’, which presents a division into periods of historical narrative – according to three four-level areas. These three areas are defined according to the criteria for the dominance of creative values. The main axis separates three areas: urban-architectural dualisms, creative-rational dualisms, and symbolic-allegorical dualisms.



Explanation: Scenario Y (marked in purple) is heterogeneous by design. This scenario is dominated by creators and examples of cities with firmly established practical solutions; this scenario also includes examples of the work of outstanding practising urban planners. These are the following numerical items and creators: (1) Hippodamus of Miletus. The figures of the creators-architects representing the successive historical periods are (5) Bernardo Morando, (6) Jacques Lemercier, (11 and 12) Robert Owen and Jean-Baptiste André Godin. The modern period begins in this scenario with the great figures of modern architecture and urban planning: Frank Lloyd Wright, Le Corbusier and Ludwig Mies van der Rohe (14, 15, 16). The last period of the final decades of the 20th century ends with outstanding individuals – three creators and the architectural design teams they created. These are Renzo Piano and Richard Rogers, Charles Moore, and Coop Himmelb(l)au (21, 22, 23). Scenario X (marked in violet), on the other hand, is dominated by purely theoretical solutions, and the various cases presented there are related to famous theorists of the philosophy of space, the sociology of the city, urban planning, and architecture. Unlike Scenario Y, Scenario X is much more homogeneous and clearer. In proceeding to the numbering of the examples, it is necessary to note in the period of Antiquity (2) the figure of Marcus Vitruvius; in the period of the authors of Renaissance treatises – two figures (3, 4): Vincenzo Scamozzi and Francesco di Giorgio Martini; further, in chart positions 7, 8, 9, 10, and 13, there are such figures as Étienne-Louis Boullée, Claude-Nicolas Ledoux, Thomas More, Charles Fourier, and Theo van Doesburg. The 20th century is represented here by four philosophers of space and sociologists of the city in positions 17, 18, 19, and 20, such as Florian Znaniecki, Martin Heidegger, Christian Norberg-Schulz, and Edward Hall. The historical entity of the chart is closed by the figure of Christo (Vladimirov Yavashev) in the category of contemporary urban interior (24).

Fig. 5. The phenomenon of spatial dualisms. Historical narrative curve – by the three aggregated areas (between rationalism and symbolism)

Source: own work.

Thus, the three areas with a dominant symbolic-creative formula are included in values that are conventionally labelled as positive. When proceeding to the description of the main areas, it should be pointed out that the area containing urban and architectural solutions was placed first, with a value from 0 to +4. The second, defined on a scale of values from +5 to +8, is the area of spatial-symbolic solutions. The third, closing the value scale, between +9 and +12, is the symbolic-allegorical area, where the authors see the greatest creative charge and, at the same time, the least potential for external conditions.

Description of the diagrams. The rationale for the division into scenarios. Convergence and divergence perspective

To illustrate the phenomenon of spatial dualisms, as well as a starting material for the conclusions section, the team of authors prepared Figure 5. The authors made an arbitrary selection of examples, identified two scenarios, and characterised their course. These were Scenarios X and Y.

Confirmation of the validity of the historical approach

Both scenarios showed the validity of the historical approach since, by making the assumptions formulated above, a profound recurring cyclicity of dualistic phenomena persisting in the formation of space in Le Corbusier's urbanised environment was obtained. The phenomenon of cyclical spatial dualisms has not been described before and is a new value added by the team of authors within the scientific discipline of urban planning and architecture.

Convergence and divergence perspective

Both scenarios show far-reaching spatial correlations with each other. The lines of Scenarios X and Y form, in simplified terms, sine waves (Fig. 5).

A significant deviation of the graphs and a significant flattening of the graph line can be seen in Scenario Y. Sequence repetition occurs at an interval of about 300 years in the first phase of the graph and then accelerates and reaches an interval of only 100 years in the last – the 20th century. In addition, a mention should be made of the significant shift of the broken line of Scenario X in relation to the graphs of Scenario Y. Scenario X is significantly above the main (zero) axis of the graph and is almost entirely contained in the two highest areas – spatial-symbolic and symbolic-allegorical.

The analysis carried out in the paper allows us to conclude that it is possible to categorise the phenomenon of spatial dualisms.

CONCLUSIONS

The dualisms that are presented in this article are based on opposites that, like the mind and the body, complement each other. 'The number two, or one plus one, is complex, dual' – Mondrian writes – 'and yet it is a whole; and conversely, unity contains duality.' (Seuphor, 1956, pp. 301–310). Based on the considerations in the text, the following conclusions were drawn:

1. When analysing urban planning issues, it is necessary to look at them more broadly than just in terms of form and scale.
2. An important point is the identification of seven directional profiles in the various fields of knowledge in which duality threads are intertwined. These seven profiles intermingle and complement each other. The most important conclusion is the revealing of multiple, multi-area references and borrowings in the formation of spatial dualisms in the past and in the present.
3. The article formulates a new thesis that dualism is an immanent feature of spatial solutions across the spectrum of history. Urban planning has always fed, and continues to feed on dualisms to this day, and it takes advantage of their existence to create a new perception of space based on them, unleashing the dynamism of forms and scale.
4. The study showed that there is a noticeable cyclicity to the phenomenon of dualism in the urban-spatial area from a historical perspective. Returning to the results shown in Figure 5, it is worth noting that Scenario X contains a strong correlation with Scenario Y. The cyclicity is also evident in the graph of Scenario Y.

5. The research concerned only urban planners and architects from the cultural circle of the West, i.e. the Euro-Atlantic civilisation (optionally with an extension to Latin American culture). Therefore, the above conclusions cannot be extended to other cultures, such as Islamic culture, China or other Far Eastern cultures (Huntington, 2011, pp. 42–48). The question of the universality of urbanism was already posed by Chris Alexander (Alexander, 2015, p. 57).

THE APPLICATION VALUE OF THE RESEARCH

The presented results have a great application value. The reasonable expectation of the presence of dual elements in new urban planning concepts can be mentioned here. The application layer also includes all bipolar systems of infrastructural service of the area, which are already being designed; however, it also includes a search for bipolar historical and symbolic functions of cities, as well as elements of constructing the cultural landscape and identity of places.

The novelty of this article also manifests itself in the revealing of multiple, multi-area references and borrowings in the formation of spatial dualisms in the past and in the present. Artists, even those unambiguously associated with their architectural-urban achievements, combine symbolic, allegorical, and social themes in their work. Similarly, sociologists and the great utopians of social ideas move in the urban background, often using these ideas in their description of architectural elements par excellence.

The dualisms in our conceptual system allow us to understand their role more fully in the world and to create, as Florian Znaniecki put it, ‘spatial values’ (Znaniecki, 1938, p. 91), which include both occupied and empty spaces, interiors and exteriors, and anything that opposes itself.

Authors’ contributions

Conceptualisation: J.W.K. and P.F.Z.; methodology: J.W.K. and P.F.Z.; validation: J.W.K. and P.F.Z.; formal analysis: J.W.K. and P.F.Z.; investigation: J.W.K. and P.F.Z.; resources: J.W.K. and P.F.Z.; data curation: J.W.K. and P.F.Z.; writing – original draft preparation: J.W.K. and P.F.Z.; writing – review and editing: J.W.K. and P.F.Z.; visualisation: J.W.K. and P.F.Z.; supervision: J.W.K. and P.F.Z.; project administration: J.W.K. and P.F.Z.

All authors have read and agreed to the published version of the manuscript.

REFERENCES

- Alexander, C. (1973). *Notes on the Synthesis of Form* (4th ed.). Cambridge, MA: Harvard University Press, p. 10.
- Alexander, C. (2015). *A City Is Not a Tree* (50th ed). Portland, OR: Sustasis Press, Sustasis Foundation, p. 57.
- Banham, R. (1960). *Theory and Design in the First Machine Age*. London: Architectural Press, pp. 189, 247, 251–252.
- Berg, C. (2006). Erziehungswissenschaftliche Anerkennungen zum Generationsbegriff. *Forum*, 259, p. 31.
- Bollnow, O. F. (1963). *Mensch und Raum*. Stuttgart: Kohlhammer Verlag.
- DBT/Melde (2015). *Christo-Sammlung zum verhüllten Reichstag 1995* [photography]. Retrieved from: <https://www.bundestag.de/webarchiv/textarchiv/2015/kw47-christo-395996> [accessed: 22.06.2022].
- Descartes, R. (1685). *Principia philosophiae*. Amsterdam.
- Florida, R. (2019). *The Rise of the Creative Class*. Basic Books: New York, pp. 28–32.
- Giedion, S. (1967). *Space, Time and Architecture: The Growth of a New Tradition*. Cambridge, MA: Harvard University Press.
- Giorgio Martini, F. di (c. 1470). *Fortified Man* [illustration from Trattato di architettura]. Turin Biblioteca Reale. Retrieved from: <https://scx1.b-cdn.net/csz/news/800a/2022/hearts-cells-and-mud-h-1.jpg> [accessed: 22.06.2022].
- Gropius, W. (1962). *The Scope of Total Architecture*. New York: First Collier Books.
- Hall, E. T. (1990). *The hidden dimension*. New York: Anchor Books.

- Heidegger, M. (1994). *Bauen Wohnen Denken*. Köln: Vorträge und Aufsätze.
- Heller, M. (1993). *Fizyka ruchu i czasoprzestrzeni*. Warszawa: PWN.
- Hildebrandt-Wypych, D. (2009). Pokolenia młodzieży – próba konceptualizacji [Youth generations – an attempt at conceptualization]. *Przegląd Pedagogiczny*, 2, 105–124.
- Huntington, S. P. (2011). *The Clash of Civilizations and the Remaking of World*. New York: Order Simon & Schuster, pp. 42–48, 54–56.
- Jammer, M. (1957). *Concepts of Space. The History of Theories of Space in Physics*. Cambridge, MA: Harvard University Press.
- Jencks, C. (1973a). *Modern Movements in Architecture*. New York: Anchor Press, pp. 368–372.
- Jencks, C. (1973b). *Le Corbusier and the Tragic View of Architecture*. Middlesex: Allen Lane, pp. 114–118.
- Jencks, C. (2011). *The Story of Post-Modernism*. London: John Wiley & Sons, pp. 27, 56–58.
- Jencks, C. & Kropf, K. (2006). *Theories and Manifestoes of Contemporary Architecture*. Chichester: Wiley-Academy, pp. 286–287.
- Kant, I. (1957). *Krytyka czystego rozumu*. Warszawa: PWN.
- Lynch, K. (1960). *The Image of the city*. Cambridge, MA: Massachusetts Institute of Technology.
- More, T. (1912). *Utopia*. London: The Macmillan Company, The Second Book.
- Norberg-Schulz, C. (1971). *Existence, space and architecture*. New York: Praeger Publishers.
- Norberg-Schulz, C. (2000). *Bycie, przestrzeń i architektura*. Warszawa: Murator.
- Pevsner, N. (1936). *Pioneers of the Modern Movement from William Morris to Walter Gropius*. London: Faber and Faber, pp. 142, 146–149.
- Reale, G. (1990). *A History of Ancient Philosophy*. Vol. 2. *Plato and Aristotle*. New York: State University of New York Press.
- Rewers, E. (2005). *Post-polis: wstęp do filozofii ponowoczesnego miasta*. Kraków: Towarzystwo Autorów i Wydawców Prac Naukowych Universitas.
- Sadler, S. (2005). *Archigram: Architecture without architecture*. Cambridge MA: Massachusetts Institute of Technology Press, p. 47.
- Sennett, R. & Jankowska, H. (2009). *Upadek człowieka publicznego*. Warszawa: Wydawnictwo Muza.
- Sennett, R. & Konikowska, M. (1996). *Ciało i kamień. Człowiek i miasto w cywilizacji Zachodu*. Gdańsk: Wydawnictwo Marabut.
- Seuphor, M. (1956). *Piet Mondrian Life and work*. New York: H.N. Abrams.
- Venturi, R. (1966). *Complexity and Contradiction in Architecture*. New York: The Museum of Modern Art.
- Wallis, A. (1979). *Informacja i gwar*. Warszawa: Państwowy Instytut Wydawniczy.
- Zarębska, T. (1970). *Teoria urbanistyki włoskiej XVI XVII wieku*. Warszawa: PWN.
- Znaniński, F. (1938). Socjologiczne podstawy ekologii ludzkiej. *Ruch Prawniczy, Ekonomiczny i Socjologiczny*, 18 (1), 89–119.

CYKLIČNOŚĆ DUALISTYCZNYCH TRENDÓW W PROJEKTOWANIU URBANISTYCZNYM. ANALIZA HISTORYCZNA POSTAW TWÓRCZYCH WYBRANYCH MISTRZÓW NA PRZESTRZENI WIEKÓW

STRESZCZENIE

W artykule wykazano, że tendencje dualistyczne są trendem okresowym i cyklicznym, powtarzanym przez wielu planistów i architektów na przestrzeni wieków. Należy zatem założyć, że w kolejnych koncepcjach miast przyszłości powyższe tendencje również będą obecne. Ma to istotne implikacje dla rozwoju myśli urbanistycznej w nadchodzących czasach. W artykule autorzy poruszyli problematykę dualnych rozwiązań w projektowaniu urbanistycznym i rozwoju miast. Należy już na wstępie zaznaczyć, że samo pojęcie dualności nie jest oczywiste i jednoznaczne. Liczne istniejące definicje są bardzo ogólne. Można wyróżnić wiele dyscyplin i obszarów nauki, w których występuje lub może pojawić się pojęcie

dualizmu. Jednocześnie definicja każdego z tych zjawisk będzie inna w zależności od obszaru, na którym występuje. Stąd autorzy dokonali daleko idącej redukcji typów dualizmów, zawężając obszar badań do postaw twórczych urbanistów, filozofów przestrzeni, artystów i architektów w ujęciu historycznym. Celem poszukiwania cech dualnych w formach przestrzennych jest znalezienie klucza do lepszego zrozumienia praw rządzących procesem planowania i urbanizacji. Weryfikacja przeciwieństw i dualnych cech odbywa się na trzech poziomach: wspólnoty, formy i funkcji. Warunki miejskie przyczyniają się do powstawania nowych jakości i nowych form przestrzennych, które pozwalają na nowo zdefiniować miasto i jego rozwój. Podstawą artykułu jest teza, że dualizm jest trwałą cechą rozwiązań przestrzennych (cechą powracającą) na przestrzeni dziejów.

Słowa kluczowe: przestrzeń miejska, dualizm przestrzenny, urbanistyka, historia struktur miejskich, dychotomia w przestrzeni miejskiej