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INTENSE COLOURS IN THE LATEST WORKS OF ARCHITECTURE

INTENSYWNE KOLORY W ARCHITEKTURZE NAJNOWSZEJ

Abstract

Vivid colours in external views of the latest works of architecture are not commonplace. Le Corbusier introduced basic colours delicately, on small fragments. Architects inspired by his work most often select rather small fragments, marking with only a single colour that is clearly contrasted with the entire composition. The construction of massings with vivid colours is the domain of either young and bold or experienced architects who can convince decision-makers about their proposals and rationale. The author presents structures with elements of various colours, as well as single-colour structures that feature surprisingly striking colours, completed by outstanding contemporary architects.

Keywords: contemporary architecture, stararchitects, colour in architecture

Streszczenie

Ostre kolory na zewnętrznych ścianach budowli architektury najnowszej nie występują często. Le Corbusier delikatnie wprowadzał na małych kawałkach kolory podstawowe. Inspirowani jego twórczością architekci wybierają raczej niewielkie fragmenty powierzchni, używając najczęściej tylko jednego koloru skontrastowanego wyraźnie z całą kompozycją. Budowanie brył o mocnych żywych kolorach jest domeną młodych odważnych architektów lub tych doświadczonych, którzy potrafią przekonać decydentów do swoich wyobrażeń i racji. Autorka przedstawia obiekty z elementami różnych kolorów, a także jednobarwne o zaskakujących mocnych barwach, realizowane przez wybitnych współczesnych architektów.

Słowa kluczowe: architektura współczesna, stararchitekci, kolor w architekturze

1. Introduction

In the latest architectural solutions, vivid colours appear extremely rarely. The colours of natural contemporary construction materials clearly dominate: grey concrete, metal with its grey hues or rusty corten, glass – either translucent or frosted, at times featuring pastel shades – stone, ceramics, timber in different tones of beige and brown. Sometimes only a small fragment of a building is accentuated with a stronger colour.

2. Colour in the work of Le Corbusier

Such was the case with the Unité d'Habitation in Marseilles that Le Corbusier designed at the start of the 1950's. Interest in the construction of a housing block of then-unprecedented scale, with a finish from a new material – cast concrete – with a mixed residential and service form of use, was immense. Over the course of the 18 months preceding the completion of its construction in 1952, as many as one hundred thousand people visited the building, each paying a 150 francs entry fee. When, after many weeks of absence at the construction site, caused by his travels to distant places, the designer finally returned to Marseilles to oversee the construction of the seventeen-storey block for 1,600 residents, he was surprised by the poor quality finishes of the concrete elements of cast walls on the building's loggias. Corbusier – who was also a painter – decided to paint the flat internal walls of balconies and loggias in a set of colours. These were vivid basic colours: red, yellow, blue and green, as only they were able to cover the unevenness of the walls [1]. Charles Jencks in turn pointed out that the introduction of colours on the loggias of the facade of the Unité d'Habitation was a result of an error in the design of window divisions, one that the designer had missed at his studio. The task of the various colours was to break up the monotony of the window layout, as well as to make the enormous scale of the building appear smaller. In this manner, Le Corbusier turned these errors to his benefit, as well as that of the building [5]. Explaining the principles of the design of the external facades of the Unité d'Habitation to his opponents and critics, Le Corbusier wrote that he had decided to create beauty through contrast. That he would conduct a dialogue between austerity and delicateness, between the bland and the vivid, between precision and chance. He wrote he would force people to think and to reflect; that it had been the cause for which he had designed the bold, flashy, triumphant polychromes of the facades [6]. This form of decorating the external facades was repeated in other of Le Corbusier's multi-family buildings – in Rezé les Nantes (1955), in Berlin (1958), Briey-en-Fôret (1961), as well as in Meaux and Firminy (1968). The colourful plaques under the windows (red, blue and yellow) appeared on the frontal facade in the Parisian Salvation Army Hostel, completed by Le Corbusier in 1933. Individual walls in striking colours can also be encountered in the interiors of the luxury Villa Savoye in Poissy (1931), or in the model semi-detached building in Stuttgart, at the model modernist housing estate of Weissenhof (1927)¹ [2].

¹ A subject of the author's *in situ* studies in the years 1992, 2001, 2003.

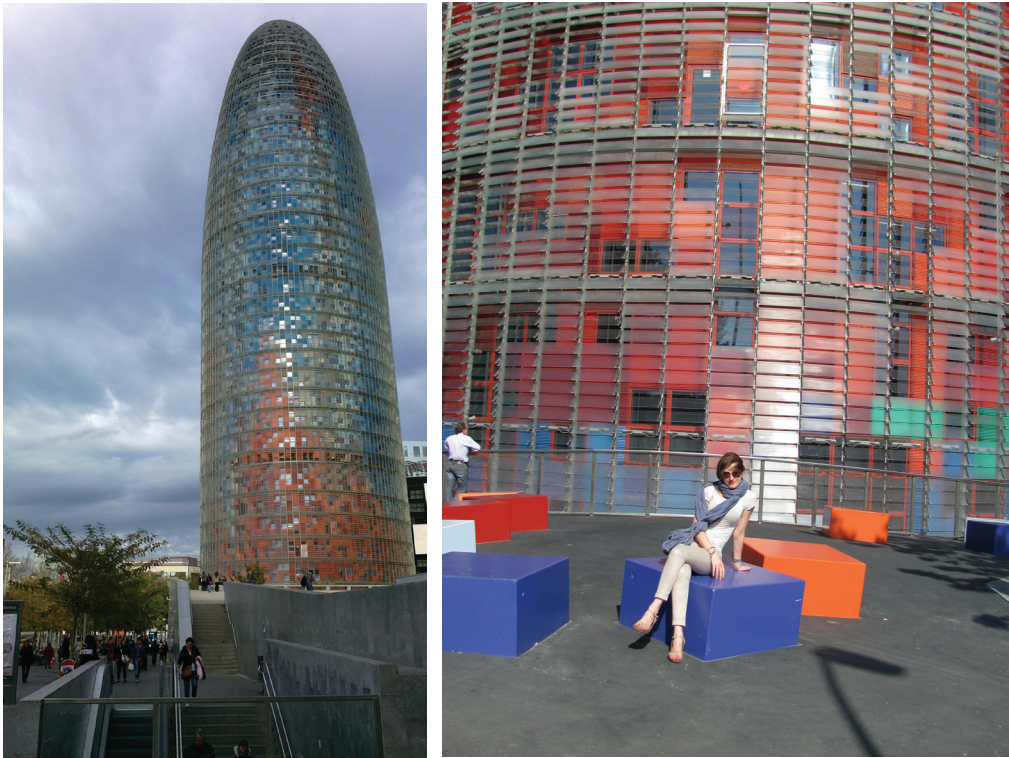
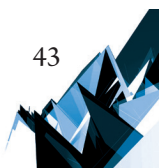


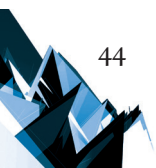
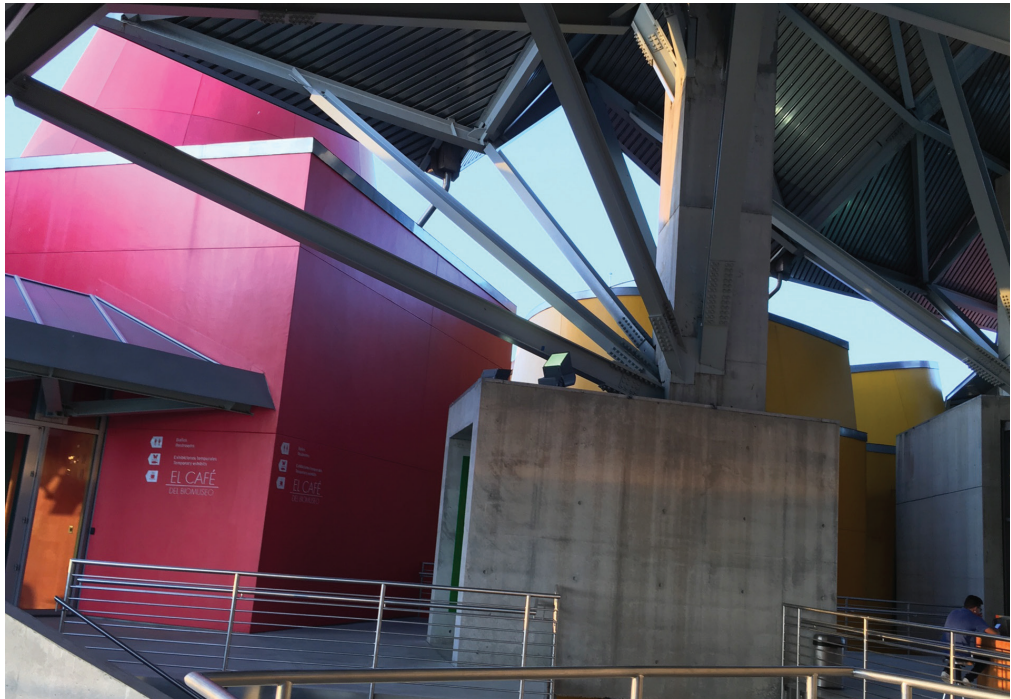
Fig. 1–2. Barcelona Torre Agbar, arch. J. Nouvel 2005, photos by M. Gyurkovich

In the last exhibition pavilion by Le Corbusier in Zurich (1963–1967), the architect changed the construction material that he had used since the beginning of his professional career. Instead of heavy concrete forms, a light metal structure appeared here, and thin coloured cladding was covered with porcelain enamel and used as a finishing material for the facades. The flat rectangular shapes introduced there were red, yellow, green, as well as white and black, in contrast to the large translucent glazing and grey structural elements. Charles Jencks wrote of this structure, built by Heidi Weber, confirming an inspiration with marine form that was common in modernism and particularly in the case of Le Corbusier. This nautical imagination and fascination with transatlantic liners can be seen in the entire building, including in its interiors. Jencks wrote that the external brightly painted panels that changed as colourful signalling flags, completed the metaphors and that all it took was to switch the surrounding green to blue to see an unusual ship cutting across the waves [6].

3. The latest completed projects from the start of the twenty-first century

The impact of the work of the father of modernism, the Great Corbu, on the subsequent generations of architects was significant. In the tall, neo-expressionist residential building built in 1999 in Paris at the intersection of Pavillons and Pelleport streets, the French architect





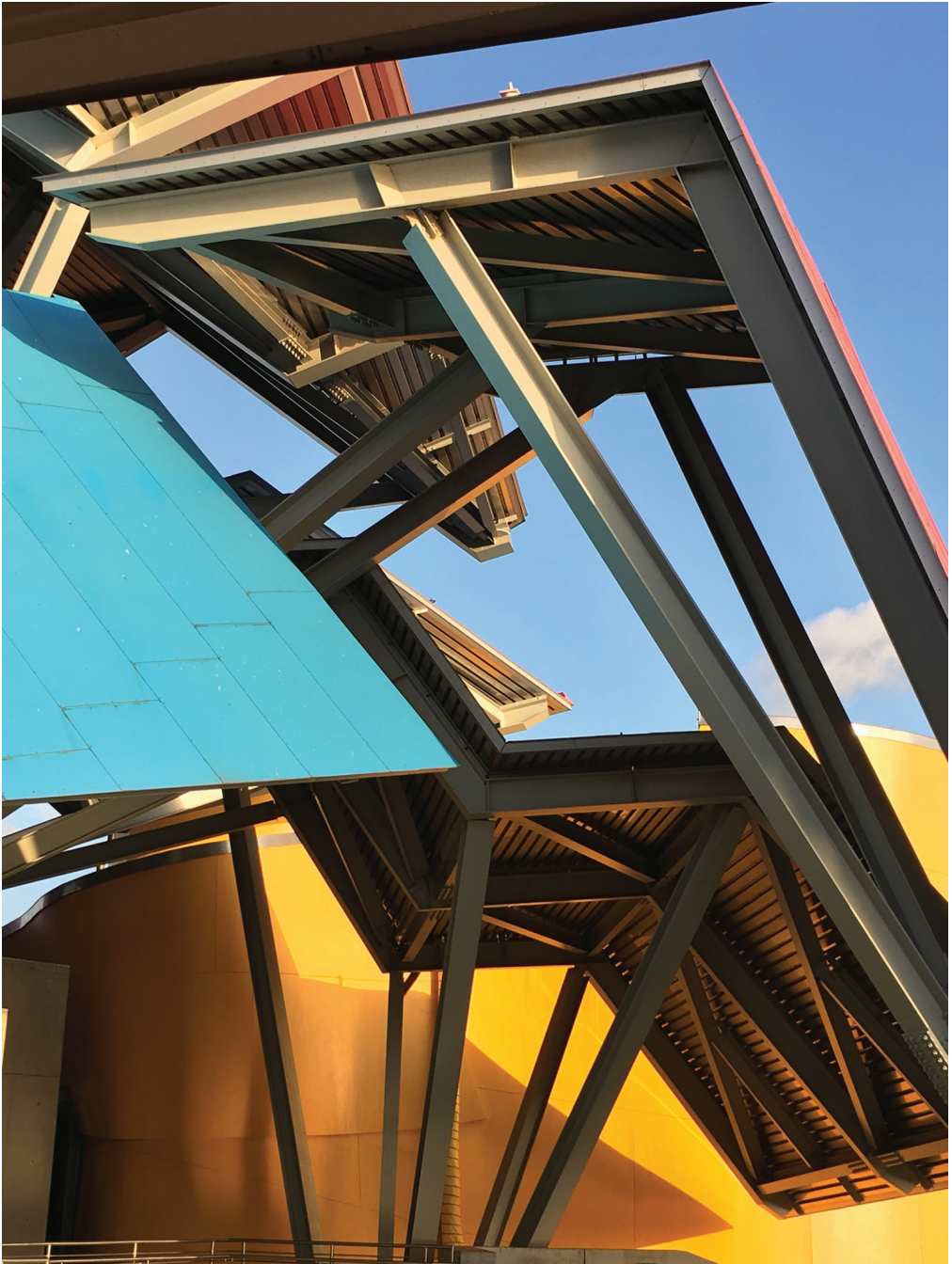
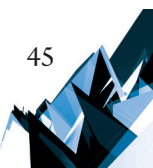


Fig. 3-7. Panama, Biomuseum, arch. F.O. Gehry 2014, photos by P. Górecka



Frédéric Borel, inspired by, among other things, the work of Le Corbusier, introduced striking reds, yellows and blues in the building's fragments² [12]. The townhouse, with a complex massing composed of numerous elements, is intriguing and elegant, and we can find in it the qualities of painterly lyricism and spatial poetics³. Borel, by dividing and breaking up a section of the new townhouses in Paris into smaller pieces, represented his creative philosophy, in which he goes against and opposes the artificial principles of rationalism [13].

We can also find the somewhat demonstrative introduction of new structural and installation elements in the high-tech style, with striking, often surprising colours in the works of Richard Rogers from various periods. This is what the architect said in an interview years before: "I don't understand why everyone has to wear black, grey, and white" [17]. In an adaptation of the historical Las Arenas nineteenth-century bullfighting arena (2000–2011), located in the northern part of Plaça d'Espana, into a new shopping centre and mixed-use complex in Barcelona, the new primary structural elements were painted a vivid yellow colour. All the steel and reinforced concrete elements that were new were distinguished from the existing, historical ones. The employed colour contrast sometimes surprises us, just as metal pipes of air intakes, painted purple, placed in rich details and window openings of existing outer facades. The project took over 10 years to complete, as the Rogers Stirk Harbour + Partners team of architects decided to preserve only the external shell of the structure from the 1870's, maintained in the decorative Moorish Revival style [14, 15]. The walls, made of red clinker brick, with a large amount of bright stone details, were raised above by an entire storey, which became the new ground floor, supporting it on steel V-shaped columns, which were painted in a striking red colour. The metal supports bent into the shape of boomerangs and placed on the roof were painted red as well, upholding a dome with a span of 76 m, which covers the entire massing along with its surrounding observation deck on the uppermost storey. However, the oval marble hall placed in the centre, spanning 100 m, reminds us of the previous function of the building [4].

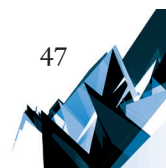
Of note is a completed project by Frank Gehry, the Puente de Vida Museum, opened on the 20th of March 2014 in the capital of Panama, located near Amador Causeway, commonly called the Biomuseum. This is Frank Gehry's first completed project in Latin America. The museum was placed at the mouth of the Panama Canal, where it enters the Pacific Ocean, on the grounds of a former US military base. It quickly became a hallmark of the city, creating, as the clients had wished it, a new and significant icon, similar to the Guggenheim Museum in Bilbao, Spain. The task of the museum is to present to the residents and visitors the object of the history, geography and biology of the Panama Canal and point their attention at the protection of the environment in this area. The foundation for the building's construction was built in 2001, however, due to its complicated steel structure, construction work was significantly delayed. The matter was not only about high financial costs, but primarily the construction capabilities of the Latin American country. The design team was obligated to simplify the structure and adapt its assembly to the technical skills

² A subject of the author's *in situ* studies in 2002.

³ Apart from an inspiration with the work of Le Corbusier, Wojciech Leśnikowski saw in this design a reference to a specific painting by Paul Cézanne – "Mont Sainte-Victoire" [13].

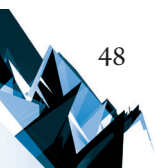
of local workers [19]. The museum's floor area is around 4,000 m². It was the architect's intention to create a new contemporary hallmark of the city based on an analysis of site-specific conditions. The new icon intrigues and invites tourists, in addition to bringing joy to residents. The introduction of multi-coloured roofs in striking intense colours appears to be a reflection of the atmosphere and mood of the architecture of the street of this part of the world. Vivid reds, yellows and orange colours, as well as blues or even greens, appear as if a gigantic bird of paradise has set down on the greenery surrounding the museum, on a narrow cape leading to the capital of Panama. According to the author of the article, this gathering of such a large number of simple, primarily gable roofs, which are sometimes superimposed upon one another and are suspended on different heights, can bring to mind the small towns or even settlements distinct of Latin or South America. Examples of such can include the small island of Santa Cruz del Islote in Colombia, created on a coral reef and sporting a surface area of 0.12 km², located at a distance of around 20 km from land and which was settled by African slaves. At present it features around 100 small houses which are home to over 1,200 people [20]. There is a complete lack of greenery and open areas, as this island is the most densely populated space on Earth – with one person per 8 m². However, the Biomuseum's roofs are not grey and rusted, but all are highly colourful. From the first conceptual sketches, Gehry assumed that the museum would be surrounded by a botanical park. The park's designer was Edwin von Gal. The broken roofs, continuing to a low height, appear as if they levitate, rising and falling, building gabled forms. At times we can observe a triangular cut-in near the edge of the roofs and in only one case the edge of a roof was finished with a soft, corrugated line. This multi-coloured steel canopy of roofs is supported by a complicated openwork steel structure.

An open, public atrium was created at the centre of the museum, from which one can enter eight independent galleries with varied layouts and thematic programmes. Spaces for permanent and temporary exhibitions were designed, as well as a shop with memorabilia and a café. Of note is the expansive and tall hall, in which a large number of concrete columns were placed and which have been cut off at various heights, their upper portions being slightly slanted, colliding, intersecting with each other, creating an atmosphere of restlessness, of planned chaos. In most spaces exhibits are shown in vertical, column-like cases, which are also fitted with colourful pastel shades. However, it is the interactive exhibits by Bruce Mau Design that are the most impressive. The museum shows the natural and historical evolution of Panama's origin, going back three million years in time. Two large aquariums show the Pacific Ocean and the Caribbean Sea which were separated by the Isthmus of Panama. The museum shows animals and birds from various periods, in addition to insects and microorganisms. An unforgettable impression is left by the suddenly appearing enormous images of tropical forests, lush greenery, tall waterfalls, footbridges and bridges suspended above chasms, the tied branches of tropical trees. Sometimes we also look at the world of nature, walking over glass surfaces. From the various levels of the museum there is an excellent view of the bay and the city's panorama. Interest in the project among residents of Panama and tourists alike was so great that it had been decided to open access to the building even before its completion.



Colour had appeared earlier in Gehry's architecture, including in, among others, the Museum of Pop Culture in Seattle (1995–2005) where its freely sculpted, expressive massings were covered by colourful metal sheets of a golden, silver, blue and red colour [9]. J. Fiona Ragheb wrote the following of the inspiration with specific items and Jimi Hendrix's legacy in the construction of the building's massing. "The allusion to a shattered Fender Stratocaster is carried through in a glass sculpture that rides the crest of the building, suggesting the strings and frets of a guitar neck. The colours – a riot of gold, pale blue, purple, red, and silver – are symbolic references to various songs and events from the history of rock and roll, including Hendrix's song 'Purple Haze'..." [18]. The museum was devoted to the history of and study of popular music and science fiction. It features numerous mementoes from the period of fascination with rock and roll and gives the latest multimedia presentations at the highest level. Another time, in the hotel and Spa near the oldest wine shop in the area, Vinos Herederos del Marques de Riscal in Elciego, Basque Country, near Bilbao, Spain, Frank Gehry covered the building's restaurant and hotel administration buildings with interweaved and tangled belts of titanium sheets. The belts of metal sheets, which were imported from Japan, were used in three colours – silver and red, which was inspired by the colours of wine, while the third colour, golden, was the mesh in which the wines produced at this historical vineyard are packaged in [3]. However, the colours introduced in his sculpturally complex and expressive projects had never been as intensive and vivid as they were in the previously discussed Biomuseum in Panama.

Courage in the introduction of bold colours into newly built massings of the latest works of architecture surprises their audience. It is most often the domain of young, "bold" architects. This group undoubtedly includes the Frenchwoman Dominique Jakob and Brendan MacFarlane from New Zealand. They surprised the world with their projects of two buildings located in Lyon as a part of one of the largest post-port restoration projects in Europe, the Lyon Confluence, at the point of contact between the Rhône and the Saône rivers. The first of these is Le Cube Orange, an administrative building built in the years 2005–2010 at qua Rambaud Confluence [8]. The building surprises us not only with its large scale (29 x 33 m), but primarily with its bold orange colour. It was built as an extension of rather short concrete salt storage buildings from the start of the twentieth century. This bold colour is similar to the overalls or vests worn by road workers and has never appeared on the scale of an entire massing in architecture before. The concrete and glass massing was covered up to a height of six storeys with a dense aluminium mesh with rectangular modular openings, coloured orange, and in which small polygonal and oval-shaped openings were cut. The composition of the whole is accompanied by other surprises that had previously been beyond the imagination of its audience. It is an arched cut-away of the corner of the massing (up to around 1/3 of its height) at the ground floor, right near where it connects to the existing salt storage buildings, with dome-like tops of the three chambers, perhaps explaining the introduction of soft shapes into the cuboid, simple shape of the entire massing. Meanwhile, in the central part of the building, a surprising, gigantic oval hole was drilled, several storeys in height, with a small sphere placed inside – coloured orange, of course. Inside this opening, whose existence is hard to explain, we can see alternating horizontal belts of orange balustrades and their glazing, placed on



four of the building's storeys. The balconies located there can be used by the office building's employees for recreational breaks, during which they can observe the transformation of this post-port area with a surface of 155 ha. This surprising indentation reaches up to a third of the volume of the building. Furthermore, on the roof of this geometrical massing there is a deck allowing the employees of the two uppermost storeys to rest as well. Meanwhile a RBC gallery, in addition to a centre of the promotion and sale of contemporary dressing, have been placed on its lower storeys. Another of the building's values is its energy efficiency, which is a result of the introduction of double-skin facades, the installation of photovoltaic panels and a ground-source heat pump [16].

Four years later, in October 2015, the same area saw the opening of the second building – located directly on the Ranibaud shore of the Saône – the Euronews Headquarters, a television studio for international news channels, also designed by Jakob & MacFarlane [7]. This time, the architects introduced a vivid, bright green colour on the entire cuboid, horizontally stretched block, the colour resembling fresh May greenery, placed on a double aluminium sheet laid on top of the structure's glazed facades. Similarly as in La Cube Orange, two round openings were carved into the geometrical massing, as if resembling the lenses of cameras, which gather all the latest information to relay it to the audience. Others call these openings “eyes”. They are also open towards the deck located on the roof [21]. The building features seven storeys and an additional underground level housing a garage. The decorative metal mesh visible on the outside of the facade can bring to mind associations with the fresh young leaves of spring plants, referring to the river and the wavy green areas located on the opposite shore of the Saône. The openings carved from the side of the river are smaller than in the neighbouring building, having a height of only three storeys. The author of these intricate openwork facades is Fabrice Hyber [22].

The French architect Jean Nouvel introduced intense, vivid colours into a number of his designs. 2005 saw the completion of Torre Agbar (now called Torre Glòries), an office tower of the municipal waterworks company, located at the intersection of Avinguda Diagonal and Badajoz de la Gloria square. The 144.4 m tall oval tower, inspired by the shape of a geyser, is visible from far away, towering above its surroundings. The reinforced concrete structure of the massing, with 4,400 window openings carved out of the concrete, has been covered with metal panels painted into 25 colours, ranging from red at the bottom to blues and the transparency of glass at the uppermost six storeys. The colours, introduced on small geometric rectangles, can bring to mind associations with fractal geometry or a gigantic spatial puzzle. The appearance of the entire massing being blurred was obtained by placing glass blinds on the outer wall, fastened to a steel structure. The horizontal narrow belts of either transparent or matte glass that forms this cover change their pitch automatically depending on sunlight⁴.

Nouvel completed a multi-coloured building in the years 2001–2006 in Paris, right near the Eiffel Tower [7]. It is the Quai Branly Museum, featuring exhibits on the art of the civilisations of Africa, Asia and Oceania, as well as the Americas. The collections speak not only of the colonial past of France, but also that France is familiar with and respects other

⁴ The author performed on-site studies in 2005 and 2008.



Fig. 8–11. Lyon, Cube d'Orange, arch. D. Jakob & B. MacFarlane 2010, photos by W. Kosiński

cultures. The main massing, red in colour and with a length of 220 m, has been raised up and is supported by columns. Apart from glazed elements, multi-coloured square or rectangular-shaped “boxes” extend outwards from it, housing lecture halls and exhibitions. This is what the architect said about the building: “...It’s not Occidental building. For me it is a world *dona* with colors and shapes linked to an interpretation of Africa and Oceanic and American culture” [17].

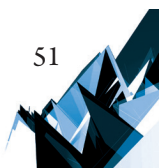
The following two completed projects by Jean Nouvel were built in uniform colours, blue and navy blue, respectively. The Guthrie Tower was opened in 2006 on the shores of the Mississippi in Minneapolis, Minnesota, USA. The theatre was placed in an industrial area, against the background of existing silos and grain mills, therefore, in the glazed and metal, navy-blue massing we can find numerous elements inspired by its surroundings. They are the source of the oval shapes of the massing, the extended masts, the balcony that extends far towards the river, as well as other elements that reference industrial architecture. The

architect, by presenting the magic of theatre, wanted to tear down the borders of illusion and reality, displaying scenes from the life of the theatre on its external walls.

Three years later, in 2009, Jean Nouvel completed the concert hall of DR Byen, a Danish public radio and television broadcasting company, in Copenhagen. The structure is located in the district of Ørestad, where the architect could not find any element that he could form a reference to, which is why he decided to create a new, large-scale icon. The extensive main concert hall for 1,800 people was elevated 15 metres above the ground floor and placed on thin columns, practically suspending it on the strong outer structure. The massing, with facades composed of glass panels arranged on a diagonal grid pattern, was hidden up to the height of 45 m in a blue cuboid massing, covered in a transparent mesh. At night the mesh serves as a screen for multimedia visualisations. “...The architecture dematerialises, becomes a play of light and a synthesis of shapes, reflected off of the surface of the building...” – said the architect [23]. The structure, which has been dubbed the “meteor” by local residents, is occupied by a radio station and the national symphonic orchestra [11].

4. Colour in open public spaces

In recent years we have been able to observe the introduction of vivid colours at the level of squares, streets and pedestrian trail sequences that feature functions that are important to cities. In the Nørrebro district of Copenhagen, Denmark, a multi-cultural municipal park called SUPERKILEN was established (2009–2012), whose authors included the following teams: TOPOTEK1, BIG Bjarke Ingels Group and Superflex. The assumption of the design was to create an innovative urban space for an ethnically diverse community formed by 60 different nationalities. In order for the residents of this neglected and even dangerous district of Copenhagen to acclimatise and feel connected with their place of residence, it was proposed for each of the nationalities to place an object from their native country in this common space. This led to the formation of an urban garden with 108 elements, a “gallery of diversity”. The lead designer of street furniture from the Danish BIG design team, Nanna Gyldholm Møller said that when her team had been invited to present the project in the neighbourhood, they had noticed that more had to be done than simply prepare an urban design. This community, its representatives from 60 countries and various nationalities, had been asked what were the best elements of street furniture from their countries [24]. Residents expect more than medium-sized and tall greenery or playgrounds for children from a modern park, also expecting spaces for practising sports, listening to music or carrying out various cultural projects. We can also work outside with a laptop here. The entire space, with a surface area of 30,000 m² and a length of 750 m was divided into three sections – the Red Square delineates a space for sports and recreation, the Black Square – is a small square with a fountain and benches around it, forming a sort of a centre of the entire complex, while the Green Park is meant for walking and rest. It is the red section that is different than in other cities and stands out, being used by residents of varying ages and with different professions and interests, similarly as the entirety of the park. This section is primarily meant for people

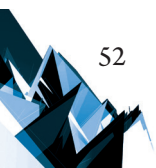


interested in sports with varying degrees of activity, e.g. like everyday running, volleyball or baseball, boxing, dancing in the air or riding the bicycle. The floor surface in the section meant for practising sports has been painted in a bright red colour, as well as in orange and various shades of pink. In some places there are geometric patterns built out of these colours, and sometimes the colour red extends to fragments of buildings or fills entire facades, and not only the single-storey ones, but also fills an entire windowless wall of a tall building that stands near this space. The red, orange and pink divan outlines the borders of the area meant for practicing sports. SUPERKILEN found itself in the final group of five projects selected for the prestigious Mies van der Rohe architectural award for 2013, which was an exception as it is an urban design. In 2013 the project also received the American Institute of Architecture award and was also nominated for the Red Dot by the Design Museum in London [26].

On a slightly smaller scale, yet in a location that is important to Dublin, the architect Maria Schwartz completed an extensive square in 2007. Called the Grand Canal, it is the main open public square in Ireland's capital, in the Docklands Development area. On the one hand, the space is open towards the Grand Canal, while on the other, its square is enclosed by the recently built new municipal theatre designed by Daniel Libeskind. From the north and south the square is surrounded by newly-built complexes of office buildings. Stone slabs form a sort of a red carpet on its surface that leads from the canal to the theatre. It is a diagonal belt that runs diagonally on the square's surface, clearly standing out from the grey of the surroundings and the green wedge located near the waterway. The red fragment of the layout features round vertical metal rods of a height varying between six to ten metres, which are slightly slanted in various directions. All of the rods, of which there is a total of 50, were lacquered in a bright red colour and placed in groups of several each on both sides of the dark red stone divan that stands out from the remaining parts of the surface of the square. The entirety of the composition is crossed by bright diagonal lines that supplement slight deconstructivist turns visible in the plan. It seems that the square prepares the audience for the restlessness and emotions that the visitors of Libeskind's theatre will experience inside its sculpturally complex and expressive interior [10].

The colour red, being the most visible, is commonly used in a carpet-like form on horizontal surfaces of squares and streets. Recently, a project was completed in St. Gallen, Switzerland, in which the open spaces of the city centre were covered with an almost literal red carpet. The Raiffeisen quarter was covered with a granulated latex carpet, similar to the soft surface of a sports pitch. The urban salon created in this manner was named Stadtlounge, its designers being the architect Carlos Martinez and the artist Pipilotti Rist. The project was built in two stages, between 2004 and 2011 [25]. Of note is the fact that, in order to provide comfort, this soft rubber surface covered not only the surface of streets and squares, but also all furniture, benches, seats, flowerpots, and even a car located in this 4,600 m² area. The space is meant solely for pedestrian traffic and the persons who work or have various errands to run in the surrounding buildings of this financial districts are provided with safety and a maximum of comfort [10].

In Europe, as well as around the world, we can encounter cities and towns in which the facades of buildings have been plastered or painted in various colours for centuries. Such was



the case in the centres of historical European cities. On one of the 40 small islands of the Venetian Lagoon, Burano, famous for the production of delicate lace, the facades of buildings, doors and window frames have been painted in brightly coloured geometric patterns for years. The houses of Scandinavia or in Reykjavik, Iceland, also surprise us with bold colours. In the traditional Polish countryside, timber homes were painted blue when a maiden available for marriage resided in the home. Therefore there were some semantic codes in the selection of colour schemes, as well as fixed principles. Today architects rarely go as far as to introduce bold and vivid colours on entire buildings. They most often introduce a small colourful fragment that contrasts with the entire composition. The latest architectural solutions are dominated by natural colours in matters of facade finishes – the greys of concrete and steel, various shades of brown, resulting from the use of selected types of wood, toned down oranges and reds when using ceramics, rusty red metal sheets when using corten. The few examples shown above are but a small part of what we can presently encounter. It is good that they are few, as they clearly stand out against the background of white, grey and black – they scream, underscoring the significance of structures, most often bringing to mind painting and sculpture, which want to boldly go onto the streets of our cities. The use of bold colours in architecture and spaces that feature unique functions increases their impact strength and aids in the identification of places in the structure of urban tissue.

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