Abstract
Niemeyer’s extraordinary ability to present his projects with one line comes from the inspiration of the landscape, the hills surrounding Copacabana Beach, and the female body. Sketching since he was younger, the architect has improved his line so much that one line was enough to explain the whole project. One of the realizations built with one line was the Ibirapuera Park in São Paulo, opened in 1954. The buildings created there, showed a glimpse of Sugarloaf Mountain, women and their curvilinear forms.

Keywords: Oscar Niemeyer, Parque Ibirapuera, women, São Paulo

Streszczenie
Niezwykła zdolność Oscara Niemeyera do przedstawiania jedną kreską swoich projektów wywodzi się z inspiracji krajobrazem, wzgórzami otaczającymi plażę Copacabana i kobiekim ciałem. Szkicujący od młodych lat architekt tak dopracował swoją kreską tak, że wystarczyła jedna linia, która tłumaczyła cały projekt. Jedną z realizacji zbudowanych jedną kreską był Park Ibirapuera w São Paulo otwarty w 1954 roku. Kolejne budynki tam powstające uwidoczniły zauroczenie projektanta górą Głowa Cukru, kobietami i ich krzywoliniowymi formami.

Słowa kluczowe: Oscar Niemeyer, Parque Ibirapuera, kobiety, São Paulo
1. Fascinations

Oscar Niemeyer was one of the most esteemed architects in the world who has created his own style of communication over the years. However, to better understand and appreciate Niemeyer’s thinking, his sketches and buildings based on these sketches, we should investigate his inspirations with women and female shapes, surroundings, mountains, the Copacabana beach, in more detail.

He has been drawing ever since he was young. Sketches of the ocean, the waves, the mountains appeared from the beginning of his works. As he was growing up, more and more women were appearing on sketches he made. He wrote in his 1988 memoirs *The Curves of Time*: “I am not attracted to straight angles or to the straight line, hard and not inflexible, created by man. I am attracted to free-flowing, sensual curves. The curves that I find in the mountains of my country, in the sinuosity of its rivers, in the waves of the ocean, and on the body of the beloved woman” [10, p. 3].

The fascination of landscape and feminine shapes was expressed in the forms of concrete solids designed by him. Linear drawings of his projects are nothing but drawings of women in the landscape. Further buildings are arising from these shapes. The scale of the building does not matter for Niemeyer. The large, monumental buildings of Brasilia, or smaller ones like the Teatro Popolar in Niteroy, all relate in some way to the sketched organic forms. Brasilia - his great ideological and political fight for beautiful buildings - is a huge complex of buildings that, even being perpendicular forms resulting from its rigid function, contain the curves of female lines from his drawings. Thanks to this, his works surprise to this day, being masterpieces for tens of years. “I search for surprise in my architecture. A work of art should cause the emotion of newness” [11] he said. Buildings from concrete curves look futuristic even today. The Cathedral of Brasilia explodes like a volcano from the ground, taking congregation to the last road.

![Fig. 1. One of Niemeyer’s drawings presenting naked women on the Copacabana Beach In Rio de Janeiro (source: Fundação Oscar Niemeyer, www.niemeyer.org.br/desenho/gravuras, access: 22.03.2017)](image-url)
For Niemeyer, the curves of hips, sensually spread legs, or the perfect “baroque buttocks” are the germ of every project that combines Brazilian sensuality and tons of reinforced concrete. “I draw a woman with a single line and imagine how the building surrounds her” [12].

One of the most delightful projects, in which the fascination of Niemeyer with the woman and her body is very noticeable, is the Ibirapuera Park. The line started by the view of women on Copacabana and the landscape in São Paulo was transformed into reality. The park was designed in conjunction with his favorite landscape architect Roberto Burle Marx¹ and the agronomist Otávio Agusto de Teixeira Mendes.

Before the 400th anniversary of the founding of São Paulo, on the 21st of August 1954 when the park was opened, there were only wetlands and favelas [4]. Everything was turned into ponds, park, alleys and buildings. The constructed recreational space has often been compared to Central Park in New York or Tokyo’s Ueno Park.

2. History

In the early 20th century, São Paulo was already a large city (250,000 inhabitants). When, at the end of the 1920s, more than half a million people were living in the city, the mayor came up with the idea of creating a magnificent recreational park like the Central Park in New York. Initially, the idea fell, but twenty years later, the area was drained and space for a new park was prepared. The organizing committee of the city’s 400th anniversary celebration chose Oscar Niemeyer and Roberto Burle-Marx to design it (part of the Burle Marx’s project was later replaced by design of Otávio Agusto de Teixeira Mendes). When it was decided that buildings would appear in the park, the citizens were very disappointed. Dozens of residents wishing only for greens and alleys were protesting. However, the city maintained its decision to create a park with varied functions and buildings. The park was opened on time, but construction continued for several years. It was completed in 2005².

¹ Roberto Burle Marx, landscape architect, painter, with Oscar Niemeyer they become tandem in tens of projects. First design in which they were co-working was Brazilian Pavilion for New York World’s Fair in 1939. He was also a staunch follower of the protection of Brazilian Amazon forests.

² In 2016 Paulo Mendes da Rocha designed meeting and event square just behind main entrance and between Oca and Auditorium buildings.
3. Composition and function

“Mayor of São Paulo proposed me the design of the Ibirapuera Park. Together with the architects Hélio Uchôa and Lotufo and Kneese de Melo, we developed a preliminary concept” [8, p. 31].

Three large exhibition buildings, a monumental main entrance to the museum and an auditorium, were all designed. The complex was going to be connected by a single-storey pavilion. All in green, surrounded by a large artificial lake (Lago das Garças) and pond. Alleys surrounded the buildings and ran along the water. Buildings – longitudinal cubes – even if from a distance, seemed to be squat forms, which were lacking loftiness in the park’s surroundings, in a close perspective, they began to fleet, almost hanging above the ground. Each of them stood on pillars and all ground floors were smaller than the remaining storeys. Retreating ground floors made the upper floors float in greenery. The one-story building was the complete opposite of the others. It flowed from building to building between greenery, becoming the most memorable structure in the park. It was the most similar to the forms drawn in Niemeyer’s sketches and the most feminine in its form. An auditorium in the shape of a section of a sphere and a theatre were going to be built on both sides of the main axis of the entrance from the obelisk of Heroes of 1932. However, the theatre did not come into life.

Fig. 3. Piece of art of Oscar Niemeyer. Ibirapuera Parque in São Paulo on the site plan (project of the square in parking place between Oca and Auditorium buildings, proj. Paulo Mendes de Rocha, 2016), (source: Paulo Mendes da Rocha fala sobre projeto para o Parque Ibirapuera, [in:] Patrimonio, 06.05.2016, http://patrimoniohistorico.prefeitura.sp.gov.br/paulo-mendes-da-rocha-fala-sobre-seu-projeto-para-o-parque-ibirapuera/ (access; 25.03.2017)
until the 21st century. An astronomical observatory and a Japanese Pavilion were built on the west side of the park. The park has a variety of recreational functions. Cycling, jogging and walking trails, football pitches, outdoor gyms, tennis courts. Parks for skateboards and bicycles, squares for yoga and combat sports, were all added a little later. The buildings included galleries and museums. The Biennale Foundation found its place in the largest building. In the subsequent cubes, there are more galleries and museums, also in the Oca building. On the opposite side, a triangular auditorium was built in 2005.

Niemeyer describes his composition 3: “After entering the park, a square was planned. On both sides, there are two buildings – the exhibition dome and the geometric auditorium. Both buildings, made from reinforced concrete, were painted in white. On the axis of the square stood the “Great Marquee”. The amorphous sculptural form is the entrance to the park. The “Marquise” did not divide the park in half, I advised to remove some of the walls so that the form became more fleeting and translucent” [9, p. 74]. “To finish the original plan, which I worked on 50 years ago, on the opposite side of the concrete dome, I designed an auditorium for 850 people with conference rooms” [8, p. 286].

4. Buildings in the park

The basic concept of the Ibirapuera Park was to design several major buildings, which were going to create the core of the project, along with minor buildings hidden in the greenery. Currently, many of the buildings have changed their functions. It seems that it was a good result because the previous functions of these buildings did not fit into the basic recreational function of the park.

4.1. Biennale Pavilion

Pavilhão Ciccillo Matarazzo (1957), the largest building in the park designed by Oscar Niemeyer and Hélio Uchôa, on its eastern side, is a pure cube, where the main body of the building was hung on columns above the smaller ground floor. In several places, staircases are poking out from the building and they lead viewers of Biennale to the greenery of the park. Inside the building, there are ramps leading to different levels. Sometimes, they run straight; another time, they turn and sometimes turn back. Just like sunbathing, sparingly dressed women on Copacabana beach captured by the Master’s line. The complex (25,000 m²) creates an amazingly three-dimensional space closed by glazing with Niemeyer’s favourite brise soleil. Firstly, just after opening, it was the Palace of Industry. Since the fourth edition of the Biennale, it is the headquarters of this great art festival. Nowadays, every two years, there is the São Paulo Fashion Week, equally as famous as the Venetian Art Biennale, as well as other exhibitions, presentations made by famous artists from all over the world.

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3 Niemeyer described Grande Marquise in memories after complete of the last building in the park – auditorium. For 60 years space under the roof was slowly annexing for new rooms and storages losing its transparency.
4.2. Nations Palace

Pavilhão Manoel da Nóbrega (1959) is located on the western side of the park, at the other end of the one-storey Grande Marquise pavilion. In a smaller scale than the Biennale Pavilion, however, on a similar compositional basis, the pavilion is dropped above the ground floor. Building facades are not completely glazed and there are no brise soleil. After the opening, there was a town hall and a city council. Currently, since 2004, Museu Afro Brasil is located there. The museum is dedicated to the history, ethnography and art of black residents of Brazil. In this small building, there are about 6000 paintings, sculptures, photographs, documents and other artefacts dating back to the 15th century. The redesigned interiors include spaces for temporary exhibitions, a theatre room and a library.

Fig. 4. Biennale Pavilion (photo by M. Twardowski)
4.3. Old Palace

Pavilhão das Culturas Brasileiras (1959) is a twin building of the Nations Palace. The structure of the building, identical to the previous one, is connected to the other two pavilions by the one-storey Grande Marquise. Designed by Oscar Niemeyer, the pavilion (originally called Pavilhão Engenheiro Armando de Arruda Pereira) was designed as the headquarters of the Municipal Data Processing Company Prodam (Companhia de Processamento de Dados do Município). After quite a long renovation, in 2010, the pavilion became available for the Museum of Brazilian Culture. On the area of 6,780 m², there are works of native art, design, crafts, graffiti and tattoos. Apart from the exhibition space, there is a library, an auditorium and a café.

4.4. Great Marquee

The “Grande Marquise” connecting the main buildings and directions in the park is a one-story building flowing through the park. It is the core of the park – almost as the span of a lying woman, which is 620 m long with a width between 10 and 80 m. Its amorphous shapes lead visitors to the following buildings: Pavilhão Bienal, Museu Afro Brasil, OCA and Pavilhão das Culturas. The area of the building is 28,800 m². The roof was based on 121 columns [5]. At the beginning (in 1952), the whole building was a closed pavilion. In closest distance from Biennale Pavilion, in 1982, the Museum of Modern Art (Museu de Arte Moderna) was built (proj. Lina Bo Bardi) [3]. After a long renovation and reopening in 2012, many glazing and walls were removed. While designing the auditorium at the beginning of the 21st century, Niemeyer noted that the Marquee with glazing and walls divide the park into two parts. Currently, besides the Museum of Contemporary Art, there are restaurants and covered open spaces, which are used by playing children, skateboarders, bicyclers, roller skaters and exercisers. You can get the impression that Niemeyer’s buildings, shaped in a way most inspired by the landscape, nature and the shape of the woman’s body, are also most favoured by the city residents. Since most of the area under the roof has been freed from the walls and become open, connected with surrounding greenery, the building has become extremely fleeting and not overwhelming and most people spend their time right here.
4.5. Oca

The building was formerly known as “Palácio das Exposições” (Exhibitions Palace). For the last few years, there was Museu da Aeronáutica (Museum of Aviation) and Museu do Folclore (Museum of Folklore). It was designed by Niemeyer in 1951. The area of the building is about 10,000 m². Recently, the dome was renovated again, all museums were moved to other locations in São Paulo and the building returned to its original function. The other Brazilian Pritzker Prize winner Paulo Mendez da Rocha (with studio MMBB) was responsible for the project. The space of the building was renovated; the three-dimensional glow of the building was brought back. The small elements from the Grand Marquee were dismantled at one end to create more free space between around dome. Reinforced concrete was renewed and the dome painted in white. Mendes da Rocha recalls: “The Marquee (Marquise) must appear and open to the park and paths with some space from the building” [1]. The building is very recognizable. Its form, in the shape of a slightly flattened dome, perfectly fits into the greenery and other design elements of the park. This is another element, where, during the design process, the author took inspiration from the hills surrounding his office and the shape of the female body. It is almost like another master’s line sketched on one of the tracing papers. Inside, there is a large number of beautiful curves.
that turn into ramps and planes, penetrating into the dome. By penetrating the columns, they create floors, ceilings and sometimes walls, which allow to present paintings and are the background for exhibited sculptures. The whole creates an unusual system for the most complex exhibitions that are hidden under the dome.

4.6. Auditorium

Auditório Ibirapuera, designed by Oscar Niemeyer from the 1950s, had different forms. However, in 2005, one of the simplest and the most minimalist visions of Niemeyer was realized. The trapezoidal form was raised from one side to the shape of a triangle in cross section. Functionally divided into 3 parts: the auditorium, the foyer and the space leading from the outside to the centre highlighted by a waving roof. An unusual metal roof painted in red emphasizes the entrance. This red tongue became the building’s logo. It is officially called Labareda – a flame. It became so popular that when Niemeyer was asked to design trainers for Converse, he was inspired by his auditorium to such an extent that he created white shoes with a red tongue, reminding the Labareda of his building [2].

Inside, in the foyer, the space remains empty with the red low relief designed by Luis Antonio Vallandro Keating and flowing as sculpture steps leading to the higher levels of the auditorium. The area of the building is about 7,000 m². The main auditorium is designed for 806 seats [14]. Under the upper part of the auditorium, there were designed rehearsal rooms and lecture halls for the music school. An interesting solution was to locate the scene at the

Fig. 8. Auditorium (photo by M. Twardowski)
gable end wall of the designed triangle. Giant steel, red doors can be pulled apart and the scene becomes a place for outdoor concerts and audiences gathered across the building in open space of the park.

4.7. Japanese Pavilion

The building located on the most western site of the park is the Japanese Pavilion, which was donated by the Japanese government in 1954. This pavilion was designed in São Paulo not by accident. The city is home to the largest ethnic Japanese minority in the world. It was inspired by the Katsura Palace in Kyoto. The interior patio area is a place where people who are exercising or running can relax, contemplating at a pond with ornamental carps. The pond is surrounded by greenery imported from Japan. The building houses a small Japanese memory and culture museum with an exhibition of ceramics, warrior costumes and other Japan-specific items.

4.8. Planetarium

Planetário Professor Aristóteles Orsini (1957) is the only building besides the Japanese Pavilion, not designed by Niemeyer (proj. Antonio Carlos, Eduardo Corona and Roberto G. Tibau Pitombo). The Planetarium resembles a flying saucer. It is the first building in the southern hemisphere, whose dome exceeds a diameter of 20 meters. Residents come here to watch the projection of sky over São Paulo and listen to lectures on the most famous stars, constellations and earth movements.

4.9. Other buildings

Next to the park, there are several other monuments and buildings: the Department of Agriculture (currently the Museum of Contemporary Art of the University of São Paulo), the Sports Arena Velodrome, nursery, gardening school, the School of Astrophysics, the Open University of the Environment and Culture of Peace (UMAPAZ), Ginásio do Ibirapuera
(1957, proj. Ícaro de Castro Mello), The Monument to the Bandeiras, Ibirapuera obelisk 72 m heigh. They are surrounding or are adjacent to the park, creating functional endings for visitors staying in the park or passing through the park; however, they do not belong to the Ibirapuera Park directly.

5. Summary

The park became a part of the city’s climate. It is adored by the locals. On non-working days, it is crowded. In 2015, in a summary of The Guardian magazine, the park was voted the most interesting park in the world (leaving behind The High Line in New York or Parque Güell in Barcelona) [7].

“My work is not about ‘form follows function,’ but ‘form follows beauty’ or, even better, ‘form follows feminine.’” [6, p. 35]. “I deliberately disregarded the right angle and rationalist architecture designed with ruler and square to boldly enter the world of curves and straight lines offered by reinforced concrete. This deliberate protest arose from the environment in which I lived, with its white beaches, its huge mountains, its old baroque churches, and the beautiful suntanned women” [10, p. 62] wrote Niemeyer. And that is how, with the help of the world of curves and straight lines, he created one of the most beautiful and recognizable parks in the world. This sense of fun and joy, fascination by the feminine shapes and landscape around the beloved Copacabana beach transformed into the unique lines that last in Oscar Niemeyer since his youth years, will still be alive in its buildings. He made an extraordinary injection of passion and emotion into the monotonous world of modernism.

“I pick up my pen. It flows. A building appears. There it is. There is nothing more to say” [13].

Translations: Agnieszka Żabicka
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