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LANDSCAPE-INSPIRED ARCHITECTURE - THREE DESIGN METHODS. FROM THE SERIES *FOUND IN THE LANDSCAPE*

Art research paper

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Abstract

The third article in the series *Found in the Landscape* published in the „inAW Journal – Multidisciplinary Academic Magazine” presents the results of research on sources of inspiration by elements of nature in selected architectural projects. Buildings designed in the last decade by Japanese architectural offices have been characterized in terms of idea, structure, quality of architecture, taking into account the biophilic features described in the previous issue of the journal, as well as differentiated perceptions of users. As a result of the analysis of the above-mentioned features, three types of inspiration have been classified: referring to the external appearance, applying the principle of operation, and at the same time referring to and undermining the inherent features of the object of inspiration.

Keywords

inspired by nature, inspired by landscape, found in the landscape, Japanese architecture, SANAA, Sou Fujimoto, Junya Ishigami

Introduction

The research project „Found in the landscape – inconspicuous/desired – imagined spaces”, of which this article is a part, is based on the idea of finding micro-spaces in the landscape – spatial configurations and/or images from which other worlds emerge, or rather that encourage processing and creating imaginary spaces on their basis, which in turn are the beginning for further interpretations. Imaginary spaces will probably remain in the conceptual phase, while the architectural realizations described in the article, constituting the basis for the analysis of three design methods based on inspirations of nature, were in fact created as interpretations of specific features of nature, and are or were subject to the best judgment of users.

There are many architectural projects inspired by nature, which I wrote about in issue No. 1 of the „inAW Journal”¹. For the purposes of this article, designs from three Japanese architectural studios: SANAA, Sou Fujimoto and Junya Ishigami + Associates, realized across three continents have been selected. Each of them uses original means and methods, thanks to which the projects are completely different, despite a common resource of inspiration sources.

The River Building

In the affluent suburbs of New Canaan, Connecticut (USA), where Philip Johnson built his Glass House 65 years ago,

A little river flows and twists,

A shiny ribbon in the mists,

Here it glitters, there it fades,

A weaving brook between the glades².

The *River Building* designed by the Japanese architectural firm SANAA (Sejima and Nishizawa and Associates) is blended into the undulating landscape of the estate belonging to the ecumenical Grace Farm foundation, flowing down the hill across a long, gentle slope in a series of bends, creating pond-like surfaces along the way³. Among the greenery of meadows and wetlands, architecture becomes a part of the landscape, it does not give the impression of a building with an area of almost 8,000 square meters located on the plot, with specific utility functions. On the contrary, it blends in with its surroundings, like other productions by Kazuyo Sejima and Ryūe Nishizawa, regardless of whether

1 J. Łapińska, *Odnalezione w krajobrazie – początek*, „inAW Journal – Multidisciplinary Academic Magazine”, 1 (2020), pp. 13–15, <https://system.inawjournal.pl/index.php/inaw/article/view/23/65>, [accessed: 27/11/2021].

2 Tuwim J., *Rzeczka*, Translation by Marek Kazmierski.

3 See: <https://gracefarms.org/river-components/> [accessed: 11/09/2021].

they are located in the center of a metropolis, such as The New Contemporary Art Museum in New York, or in suburban green areas, as it is in the case of the described *River Building*.

The significant relationship between the designed objects and the location, as well as the inextricable relationship between the surroundings and the buildings, which they call „mountains in the landscape”, are a showcase of the Japanese architects⁴. Their work is characterized by a high degree of sensitivity to landscape and topography, which was recognized in 2010 by the jury of the Pritzker Prize.

The buildings by Sejima and Nishizawa seem deceptively simple. The architects hold a vision of a building as a seamless whole, where the physical presence retreats and forms a sensuous background for people, objects, activities, and landscapes. They explore like few others the phenomenal properties of continuous space, lightness, transparency, and materiality to create a subtle synthesis⁵.

The award ceremony speech recognized the space continuity in SANAA's projects. Referring to the Rolex Learning Center in Lausanne, the jury called this quality the „internal landscape for people”⁶, the fullness of which can be appreciated by users thanks to the separation of zones by floor undulations, while keeping the walls to a minimum. A similar approach has been used in the *River Building*, where visitors to the property can enjoy the beautiful surroundings and the natural landscapes changing with the seasons thanks to spaces where the visual boundary between the inside and outside ceases to exist, the view is variable and undisturbed.

The building won 13 awards, including the Mies Crown Hall Americas Prize (MCHAP) 2014/2015 for architectural works built on the North and South American continents for „the radical way in which the line between architecture and landscape is blurred by the *River Building*”⁷.

In early 2010, just before the Pritzker Prize winners were announced, the Grace Farms Foundation approached the SANAA office with a request to realize the vision of a multifunctional place teeming with life, „where visitors could experience nature, encounter the arts, pursue justice, foster community, and explore faith”⁸. According to the founders of the foundation, the way in which space was created by Japanese architects corresponded to the goals of Grace Farms: the smooth interpenetration of the interior and exterior, characteristic of the Japanese, creates an environment with social and spiritual potential, and the nature and the landscape in New Canaan are to help visitors understand the place of an individual in the universe.

4 See: <https://www.pritzkerprize.com/laureates/2010> [accessed: 11/09/2021].

5 Excerpt from the jury's justification, <https://www.pritzkerprize.com/laureates/2010> [accessed: 11/09/2021].

6 Excerpt from the jury's justification, <https://www.pritzkerprize.com/laureates/2010> [accessed: 11/09/2021].

7 P. Lynch, *SANAA's Grace Farms Wins the 2014/2015 Mies Crown Hall Americas Prize*, <https://www.archdaily.com/797712/sanaas-grace-farms-wins-the-2014-2015-mies-crown-hall-americas-prize> [accessed: 11/09/2021].

8 <https://gracefarms.org/river-building-2/> [accessed: 11/09/2021].

The head of the foundation, Sharon Prince, writes:

Our goal with the River is to make the architecture become part of the landscape. We hope that those who are on the property will have a greater enjoyment of the beautiful environment and changing seasons through the spaces and experience created by the River⁹.

Although the foundation is religiously motivated, the New Canaan facility is not strictly a place of religious worship. It is a place of cultural importance intended to arouse curiosity through open spaces, architecture, art and design. Sharon Prince describes them as „a place for people to just come and ‘be’”¹⁰. „It’s a gift.” – she adds.

A place for people to experience nature, foster community, pursue justice and explore faith – with artistic expression as a common thread [...]. It is not a church. It is a place to make good things happen, for people to come and make a difference¹¹.

One of Grace Farms’ primary tasks is to encourage people to experience nature with all their five senses. According to the originators of the project, it is enough to let nature arouse our curiosity and amazement. In the *River Building*, out of 32 hectares of land, 31 meadows, wetlands, trees and ponds have been left to stimulate the senses of the users of the facility. The landscaping design firm OLIN invited to cooperate on the project preserved and enhanced the natural flora and fauna of the property, while adding the surroundings gardens, sports fields and paths and playgrounds designed by SANAA. In addition, 70% of the plot has been reclaimed and restored to a natural meadow by Larry Weaner Landscape Associates.

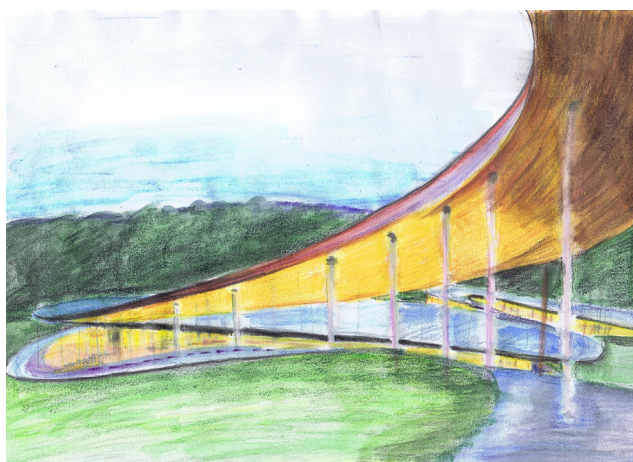


Fig. 1. SANAA, *River Building* – Grace Farms, based on photography by Dean_Kaufman, <https://www.archdaily.com/775319/grace-farms-sanaa/5722917ee58ece152e00003a-grace-farms-sanaa-photo> [accessed: 23.09.2021].

9 <https://gracefarms.org/river-building-2/> [accessed: 11/09/2021].

10 O. Wainwright, *‘It’s a gift!’ Inside America’s miraculous new centre for arts and faith*, <https://www.theguardian.com/artanddesign/2015/oct/09/grace-farms-americas-miraculous-new-centre-for-arts-and-faith> [accessed: 11/09/2021].

11 O. Wainwright, *‘It’s a gift!’ Inside America’s miraculous new centre for arts and faith*, <https://www.theguardian.com/artanddesign/2015/oct/09/grace-farms-americas-miraculous-new-centre-for-arts-and-faith> [accessed: 11/09/2021].

The River Building itself stretches over 7,710 square meters. It is a centrally located under one long reflective roof giving the impression it is floating above the ground. Winding like the ribbon of a river, it crisscrosses the terrain and descends downhill following its topography. The difference in slope end to end is about 13 meters. The bends create closed and half-open courtyards, and the interior space is flanked by transparent walls, thanks to which the facility draws in the vast natural environment surrounding it. Some of the rooms are adjacent, others are located at some distance from each other.

This configuration creates a varied atmosphere and views, such as a bright room overlooking a lively courtyard or a tranquil room with sunlight filtered through the leaves of the surrounding trees. The designed space meets the conditions of biophilia (described in more detail in the issue 1/2021 of „inAW Journal”). It is both majestic, with gardens and a distant outlook, and intimate, with shelters and places for meditation; provides visual and tactile contact with nature, uses natural systems and materials, and uses biomorphic forms and patterns.

The building is divided into five zones. The first, called the sanctuary¹², with an area of 1940 m², is an internal amphitheater for 700 people, which turns into a space for religious worship once a week. This room is equipped with, among others, „mats for multidimensional prayers” designed by Olafur Eliasson¹³. The next one is the library (422 m²) with a glass-covered conference room, a fireplace facilitating discussion and creating an atmosphere of warmth and hospitality, and housing the foundation’s offices. The commons¹⁴ for 300 people feature 5.5-meter-long tables made of wood from the surrounding trees cut down during the construction of the River, as well as sofas and a fireplace. The lecture hall and auxiliary rooms constitute its lower level. The whole area spans 1,337 square meters. The pavilion with an area of 88 m², which is the reception area, provides the possibility of organizing small concerts. And the last zone with an area of 1570 m² located under the roof ribbon is a partially underground multi-purpose court¹⁵, with a laboratory and a games room

Next to the River there is a free-standing fully renovated original barn, which houses educational rooms, an art studio, an exercise room, offices, a room for children and more. The sanctuary and court – as the largest zones – are located at the opposite ends of the river. The building, as requested by the founders of the foundation, is open, there is no single main, privileged entrance.

The SANAA design is characterized by traditionally uniform, consistent aesthetics. The reflective ribbon roof spans across five glazed rooms with no columns. Outside, delicate white steel poles with a diameter of 13 cm are supported by glued-timber beams, which support an anodized aluminum roof

12 <https://gracefarms.org/river-components/> [accessed: 11/09/2021].

13 R. Bianchini, *Grace Farms River Building by SANAA – New Canaan, CT*, <https://www.inexhibit.com/case-studies/grace-farms-river-building-sanaa-new-canaan/> [accessed: 11/09/2021].

14 <https://gracefarms.org/river-components/> [accessed: 11/09/2021].

15 <https://gracefarms.org/river-components/> [accessed: 11/09/2021].

with a semi-gloss pearl finish reflecting the light and sky. The floor and ceiling are lined with wood, while the outer walls are made of bent glass panels with the thinnest possible joints.

American architecture critic Fred A. Bernstein in the article *Grace Farms by SANAA*¹⁶ points out that perfection has its price - not only financial, but also ecological. The outer walls are made of 203 of the world's largest bent *insulated glass unit* (IGU) panels, 2.5 meters wide and 4 meters high, with an asymmetrical top edge that had to be adapted to the curve of the roof. The glass for these panels, manufactured by the British company Guardian Industries, was bent in Spain and then fitted into frames in Germany, before it could be shipped to the United States. The amount of energy used for this project far exceeds the benefits the world will receive from the recultivated 31 hectares of grassland over the coming decades.

The criticism of the building does not end there. Bernstein raises the issue of felled trees, enormous financial costs (about \$ 83 million), or the new-age combination of Jesus, yoga and Rainforest Alliance certified coffee. The most blunt, however, is his description of the shape:

Despite its name, the building looks less like a river than a snake – specifically, a boa constrictor that has swallowed five rooms, ranging in width from 9m to 50m¹⁷.

Looking at the photos of the *River Building*, one could agree with this interpretation - it all depends on your attitude.

The house-tree

The second architectural design inspired by the elements of nature is *House NA* – it is a radical house designed by Sou Fujimoto for a young couple, located in a quiet suburb of Tokyo. It is a transparent rectangular block boldly contrasting with its surroundings. The glass walls stand out from the concrete houses that constitute the majority of the landscape of residential neighborhoods in Japan, yet its overall form alludes to them.

16 F.A. Bernstein, *Grace Farms by SANAA*, <http://www.designcurial.com/news/grace-farms-by-sanaa-4766122/> [accessed: 11/09/2021].

17 F.A. Bernstein, *Grace Farms by SANAA*, <http://www.designcurial.com/news/grace-farms-by-sanaa-4766122/> [accessed: 11/09/2021].



Fig. 2. Sou Fujimoto, *House Na*, author: J. Łapińska, based on photography by Iwan Baan, <https://www.archdaily.com/230533/house-na-sou-fujimoto-architects/50180b3528ba0d49f5001698-house-na-sou-fujimoto-architects-photo> [accessed 23/09/2021].

The idea behind the creation of this building was the need to be a nomad in your own home. Fujimoto fulfilled it in an original way, arranging 85 square meters of space on 21 independent platforms with a floor area of 2 to 7.5 square meters, placed at different heights across three standard floors interconnected by stairs and ladders. These platforms, with a loosely defined function, are in the scale of furniture, not rooms, so together with elements of vertical communication, they can take on different roles, such as a passage, desk, seat or partition, but also like leaves in the treetops they can filter light, painting shimmering shadows on the surfaces.

The inspiration for this configuration of inner space was the shape of a tree. According to Fujimoto, living in a densely built-up house can be like living in a tree with many branches that provide both the place and source for countless activities of all kinds. An intriguing aspect of such living is the „unity of separation and coherence”¹⁸, where many rooms become one single space. The plates designated in this space are not separate, detached, but all exist in different relations to each other.

The intriguing point of a tree is that these places are not hermetically isolated but are connected to one another in its unique relativity. To hear one's voice from across and above, hopping over to another branch, a discussion taking place across branches by members from separate branches. These are some of the moments of richness encountered through such spatially dense living.

These are just a few of the “moments of richness encountered through such spatially dense living”¹⁹, assumed by the famous architect. The house not only can provide privacy for the couple, but it can also accommodate a larger group of people dispersed across the different levels. Fujimoto admits that

The white steel-frame structure itself shares no resemblance to a tree. Yet the life lived and the moments experienced in this space is a contemporary adaptation of the richness once experienced by the ancient predecessors from the time when they inhabited trees²⁰.



Fig. 3. The tree principal diagram being the inspiration for *House NA*, author: J. Łapińska based on https://www.archdaily.com/230533/house-na-sou-fujimoto-architects/50180b0028ba0d49f5001690-house-na-sou-fujimoto-architects-diagram-01?next_project=no [accessed: 23/09/2021].

The delicate white steel frames, made of small diameter tubing (possible thanks to the dense arrangement of the platforms) were supplemented with thin white-tinted birch floors. The structure has been additionally braced with a bookshelf reaching the full height of the building and lightweight concrete panels on the side elevations. Comfort is provided by some platforms that are heated, as well as strategically placed windows make the most of the air flow, and provide ventilation and cooling in the summer. Plumbing installations and storage spaces are hidden in the north wall.

Most of the negative comments that appear in the context of this building refer to an overly open space that does not provide any sense of intimacy. For Fujimoto himself, the space of *House NA* is also too open, but its owners are happy with it, because it corresponds with their way of life. To increase the sense of intimacy, they decided to install hand-sewn curtains, which are by themselves „small works

19 *House NA / Sou Fujimoto Architects*, <https://www.archdaily.com/230533/house-na-sou-fujimoto-architects> [accessed: 11/09/2021].

20 A. Frearson, *Cloud building by Junya Ishigami team to provide floating landmark in Copenhagen harbour*, <https://www.dezeen.com/2012/05/08/house-na-by-sou-fujimoto-architects/> and <https://www.archdaily.com/230533/house-na-sou-fujimoto-architects> [accessed: 11/09/2021].

of art”. They were hung not next to the windows, but at a distance from them, corresponding to the vibrant structure of the platforms²¹.

House NA has been designed as a whole. Even the blue Citroën 2CV, which is visible in the implementation photos, had already appeared on working models. According to architect and professor, Dan Hill, author of the article *House NA* by Sou Fujimoto, the vehicle that has become an integral part of the home forms an interesting contrast to the materials and geometry that surround it. In addition, it is an expression of *wabi-sabi*, the Japanese design principle that emphasizes the value of natural aging of materials. In addition to an appropriate vehicle, the house is also equipped with potted trees at key locations throughout. These plants, visible from the street, seem a bit unreal, like young twigs sprouting from a tree. According to Hill,

The house stands on the street like an idea that is about to materialise – and in the process eliminate the conventional notion of a house²².

A pavilion or a hill?

The third nature-inspired project was created under the most unfavorable circumstances of all those described here. In 2019, the year when the fate of Great Britain was at stake, Japanese architect Junya Ishigami was invited to design the Serpentine Gallery pavilion in Kensington Gardens, known for creating bold, experimental structures being on the verge of the laws of physics that reinterpret the traditional conventions of architecture while being reflections of natural phenomena. He became the 19th and one of the youngest architects working on the pavilion.

Junya Ishigami worked for SANAA until 2004, but left the team to establish his own design studio, Junya Ishigami + Associates. In 2014, he won two competitions for new nature-inspired infrastructure concepts. He won the first competition for the design of a „symbol of peace” in the Copenhagen port in cooperation with Svendborg Architects. The House of Peace (HOPE) in their vision is white, ephemeral cloud emerging from the sea. Despite the lightness of the visage, this huge white block hides an entire boating lake inside. The designers describe their idea as „a journey of the senses” that can „never twice be experienced as the same”²³.

21 See comments under A. Frearson, *Cloud building by Junya Ishigami team to provide floating landmark in Copenhagen harbour*, <https://www.dezeen.com/2012/05/08/house-na-by-sou-fujimoto-architects/> [accessed: 11/09/2021].

22 D. Hill, *House NA, by Sou Fujimoto*, <https://medium.com/iamacamera/house-na-by-sou-fujimoto-25a75839025a> [accessed: 11/09/2021].

23 A. Frearson, *Cloud building by Junya Ishigami team to provide floating landmark in Copenhagen harbour*, <https://www.dezeen.com/2014/07/21/junya-ishigami-svendborg-architects-copenhagen-harbour-peace-symbol-cloud/> [accessed: 11/09/2021].

The second award-winning project of 2014, was the passenger terminal of the port of Kinmen, Taiwan. An artificially shaped mountain range with a length of about 500 meters is meant reflect the natural landscape of the island and be visible from mainland China.

The aforementioned projects speak a lot about Ishigami's unique approach to shaping architecture by incorporating the natural environment (landscapes, forest, clouds) into the world of culture. His designs are dreamlike, unreal, and yet completely tangible. This was also true for the Serpentine Gallery pavilion in 2019, which rose from the ground surrounding Hyde Park like a rock formation. The author says:

I wanted to create a pavilion that felt primitive and ancient, (...) something between building and landscape. Slate roofs are found all over the world, so anyone coming here will be able to identify with it as a basic, archetypal form²⁴.

The description of the pavilion on the website of the Serpentine Gallery reads:

My design for the Pavilion plays with our perspectives of the built environment against the backdrop of a natural landscape, emphasizing a natural and organic feel as though it had grown out of the lawn, resembling a hill made of rocks. This is an attempt to supplement traditional architecture with modern methodologies and concepts, to create in this place an expanse of scenery like never seen before. Possessing the weighty presence of slate roofs seen around the world, and simultaneously appearing so light it could blow away in the breeze, the cluster of scattered rock levitates, like a billowing piece of fabric²⁵.



Fig. 4. Junya Ishigami, Serpentine Gallery Pavillion, 2019, autor: J. Łapińska, author: J. Łapińska, based on photography by Laurian Ghinitoiu, <https://www.archdaily.com/919342/first-look-at-the-2019-serpentine-pavilion/5d095371284dd13726000801-first-look-at-the-2019-serpentine-pavilion-photo> [access: 23.09.2021].

The Serpentine Gallery pavilion from 2019 can be described as a canopy that gave the impression of a natural form found in nature. The shape was described on a projection similar to a triangle, the rounded angles of which were in contact with the concrete base. The incredibly thin roof, covered with dark gray Cambrian slate, was mounted on a steel mesh resembling a woven basket in structure.

24 O. Wainwright, *Serpentine Pavilion 2019: Japan's great conjuror falls foul of health and safety*, <https://www.theguardian.com/artanddesign/2019/jun/18/serpentine-pavilion-2019-review-junya-ishigami> [accessed: 11/09/2021].

25 J. Ishigami, <https://www.serpentinegalleries.org/whats-on/serpentine-pavilion-2019-designed-junya-ishigami/> and <https://www.designboom.com/architecture/junya-ishigami-serpentine-pavilion-slate-roof-london-06-18-2019/> [accessed: 11/09/2021].

The roof was supported by a „forest” of 106 loosely spaced, visually lightweight, white slender steel columns. In order to achieve the vision of a seemingly „unstable” structure supporting a supposedly light roof, Ishigami collaborated with AECOM design office. The engineers managed to make it possible for the structure supporting the 60-ton roof to be almost six times lighter²⁶. Between the columns were only simple tables and seats designed by Ishigami to resemble the petals of water lilies. The dark, thin round surfaces of the tops and seats were supported on single legs. Inside, the experimental space was to resemble a cave or a shelter for contemplation. As Ishigami described it,

A stone creates a landscape, and a landscape usually sits outside of a building. I wanted to create the landscape inside the building, as a theory of the landscape that the stone creates outside (...) In that sense, I tried to create this landscape that exists outside, inside the building itself²⁷.

The idea was beautiful, as were the initial sketches, but when faced with reality, there were voices of criticism. English art critic, Veronica Simpson, writes that the idea may have looked good on paper, but in reality the pavilion was oppressive and repulsive. Especially on rainy days, when the slate tiles, supported on the unstable-looking structure, darkened due to moisture, and made a very depressing impression.

The heft and overhead presence of the slate – 62 tonnes of it, each piece stitched into a supporting cage by individual wires – feels precarious, unstable, as if the roof could teeter and fall at any moment, snapping or buckling the spindly steel supports that uphold it²⁸.

The pavilion, which was supposed to express the idea of “free space”²⁹, in which Ishigami searches for harmony between artifacts of culture and nature, has also been limited by reality. Calculations by AECOM engineers showed the need for more columns than anticipated in the first sketches. In addition, the analysis of the wind flow forced the use of transparent plastic walls, thanks to which the lightweight furniture was not blown away, but at the same time blocked the possibility of free communication and the flow of space, which made the architect sad. As Oliver Wainwright points out in his article in *The Guardian* that history tends to repeat itself in the Japanese Serpentine Gallery projects. When SANAA started building its pavilion in 2009, the designers were forced to use thicker columns and similar transparent screens as in the Ishigami pavilion to protect against the wind, and the volatile structure by Sou Fujimoto from 2013, had to be equipped with plenty of railings and handrails.

26 See: A. Frearson, *Junya Ishigami unveils rocky Serpentine Pavilion made out of slate*, <https://www.dezeen.com/2019/06/18/serpentine-pavilion-2019-junya-ishigami-slate-mountain/> [accessed: 11/09/2021].

27 A. Frearson, *Junya Ishigami unveils rocky Serpentine Pavilion made out of slate*, <https://www.dezeen.com/2019/06/18/serpentine-pavilion-2019-junya-ishigami-slate-mountain/> [accessed: 11/09/2021].

28 V. Simpson, *Serpentine Galleries, Hyde Park, London, 21 June – 6 October 2019*, <https://www.studiointernational.com/index.php/junya-ishigami-serpentine-pavilion-2019-review> [accessed: 11/09/2021].

29 J. Ishigami, <https://www.designboom.com/architecture/junya-ishigami-serpentine-pavilion-slate-roof-london-06-18-2019/> and <https://www.serpentinegalleries.org/whats-on/serpentine-pavilion-2019-designed-junya-ishigami/> [accessed: 11/09/2021].

Junya Ishigami's Serpentine Gallery Pavilion, like Fujimoto's, follows the Japanese principle of borrowed landscape, scenery from beyond the garden³⁰ – *shakkei*. Just as a distant mountain becomes an inspiration for precisely raked gravel, as in the case of the pavilion from 2013, where the structure borrowed the outline of the main gallery building, and in the pavilion from two years ago discussed here, this principle was expressed in the slate roof, which alludes to the roof covering of the main building. Oliver Wainwright noticed that "the slate roof of the 1930s Serpentine Gallery (originally built as a tea pavilion) does poke up behind Ishigami's swelling sea of slate"³¹. JAs you can see, Simpson was not alone in her critical words about the pavilion when she noticed that „the idea of this pavilion as a new kind of landscape emerging from this building”³² could only be appreciated by a drone or helicopter, not by a bystander, unless that bystander suddenly grew wings.

There are more bird references in statements about the Serpentine Pavilion from 2019. The author of the project described it this way himself:

My image is of a flying black bird in a rainy sky, with the stones as feathers, the roof as the wings and the columns as streaks of rain³³.

Wainwright's impressions are even less positive: „Squatting on the lawn like a moody crow...”³⁴ or „Part bird, part spoil heap”³⁵. Simpson likewise believed the pavilion resembled the unfolded wing of a raven or crow, which she thought was favorable. Although black birds have a bad reputation in European tradition, in Japan the crow is worshiped as a symbol of rebirth and guidance³⁶, especially the three-legged crow (*yatagarasu*) in the Shinto tradition is evidence of divine intervention - and at the time of Simpson writing her article, the situation in Britain needed some of that.

More heavy words of criticism fell on the pavilion. The first allegations that the office did not pay its employees surfaces already at the design stage. Even more followed the scandal involving the director of the gallery, Yana Peel, as a result of which a critic for The Observer wrote that the building by Ishigami is „an ominous stone cloud... an apt metaphor for the noxious conflation of contemporary art and big business”³⁷.

30 *Estetyka japońska. Antologia*, ed. K. Wilkoszewska, Kraków 2008, p. 229.

31 O. Wainwright, *Serpentine Pavilion 2019: Japan's great conjuror falls foul of health and safety*, <https://www.theguardian.com/artanddesign/2019/jun/18/serpentine-pavilion-2019-review-junya-ishigami> [access:ed 11/09/2021].

32 V. Simpson, *Serpentine Galleries, Hyde Park, London, 21 June – 6 October 2019*, <https://www.studiointernational.com/index.php/junya-ishigami-serpentine-pavilion-2019-review> [access:ed 11/09/2021].

33 A. Frearson, *Junya Ishigami unveils rocky Serpentine Pavilion made out of slate*, <https://www.dezeen.com/2019/06/18/serpentine-pavilion-2019-junya-ishigami-slate-mountain/> [access:ed 11/09/2021].

34 O. Wainwright, *Serpentine Pavilion 2019: Japan's great conjuror falls foul of health and safety*, <https://www.theguardian.com/artanddesign/2019/jun/18/serpentine-pavilion-2019-review-junya-ishigami> [access:ed 11/09/2021].

35 O. Wainwright, *Serpentine Pavilion 2019: Japan's great conjuror falls foul of health and safety*, <https://www.theguardian.com/artanddesign/2019/jun/18/serpentine-pavilion-2019-review-junya-ishigami> [access:ed 11/09/2021].

36 See: H. Murakami, *Kronika ptaka nakręcacza*, Warszawa 2004.

37 V. Simpson, *Serpentine Galleries, Hyde Park, London, 21 June – 6 October 2019*, <https://www.studiointernational.com/index.php/junya-ishigami-serpentine-pavilion-2019-review> [access:ed 11/09/2021].

Whether an ominous cloud or a spoil heap, undoubtedly, Ishigami's architecture alludes to elements of nature - mountains, trees, lakes or birds. This was the architect's assumption:

I want to evoke people's imagination, (...) like when you look at the clouds, you might see some shapes of animals or something³⁸.

Epilogue

Ishigami's cloud also appeared in Tokyo this year, where all three of the aforementioned architectural offices participated in the design of pavilions for the Olympic Games. *Kokage-gumo* – literally „wooden clouds” – was a burnt wood structure spread out over the garden of a 1927 mansion, known as the *Kudan House*. The cracks and openings created by the arrangement of the wood filtered the light, cast shadows and framed the view, obscuring the tall office towers surrounding the residence.

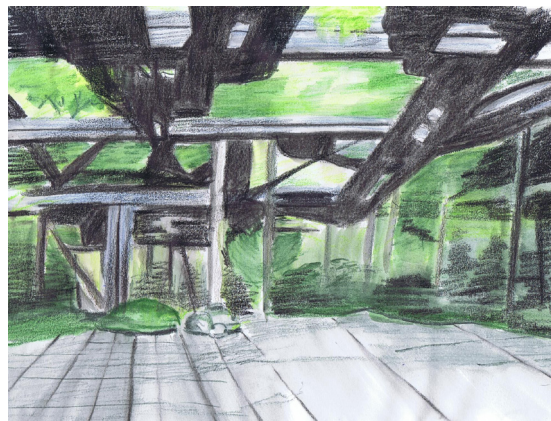


Fig. 5. Junya Ishigami, *Kokage-gumo*, author: J. Łapińska, based on photography by Shuji Goto, https://www.archdaily.com/965902/renowned-japanese-architects-and-artists-create-a-series-of-pavilions-in-tokyo-in-celebration-of-the-olympics/6101c8a6a604170165dbbf02-renowned-japanese-architects-and-artists-create-a-series-of-pavilions-in-tokyo-in-celebration-of-the-olympics-photo?next_project=no [access: 23.09.2021].

Sou Fujimoto also used the topos of cloud in the design of the *Cloud Pavilion* which is like white balloons floating over Yoyogi Park - the site of the 1964 Olympics.



Fig. 6. Sou Fujimoto, *Cloud Pavilion*, author: J. Łapińska, based on photography by Laurian Ghnitoiu, https://www.archdaily.com/965902/renowned-japanese-architects-and-artists-create-a-series-of-pavilions-in-tokyo-in-celebration-of-the-olympics/6101c92ba60417162fa87d20-renowned-japanese-architects-and-artists-create-a-series-of-pavilions-in-tokyo-in-celebration-of-the-olympics-photo?next_project=no [access: 23.09.2021].

Kazuyo Sejima, the co-founder of SANAA, reiterated the theme of the meandering river this time in the historic Hama-Rikyu Gardens. The Sumei of her own design was an installation rather than a pavilion. It reflected the nearby skyscrapers, embracing both ancient and modern Tokyo.

The world is changing, and staying in place. Just like water. If the flow stops, the water will become stagnant. Likewise, Tokyo is always on the move, which we hope will lead to a pure future³⁹.



Fig. 7. Kazuyo Sejima, *Sumei*, author: J. Łapińska, based on photography by Kazuyo Sejima and Associates, <https://www.archdaily.com/965902/renowned-japanese-architects-and-artists-create-a-series-of-pavilions-in-tokyo-in-celebration-of-the-olympics/6101c99b02cade30ce7068ed-renowned-japanese-architects-and-artists-create-a-series-of-pavilions-in-tokyo-in-celebration-of-the-olympics-photo> [access: 23.09.2021].

Summary

Design method	synthesis of external appearance features	application of the "principle of operation" found in nature	questioning the basic feature being the point of reference
Name (location)	Grace Farms, <i>River Building</i> (New Canaan, CT)	<i>House NA</i> (Tokyo)	Serpentine Gallery Pavilion 2019 (London)
Designer	SANAA	Sou Fujimoto	Junya Ishigami
Impression	In terms of aesthetics, the building is perceived positively. Its ecological impact is controversial.	Positive reception of the design. The functional properties of the house raised some doubts.	The pavilion was perceived ambivalently. It evoked many negative emotions, not only concerning its aesthetics.

Table 1. Comparison of design methods derived from nature, author: J. Łapińska.

The analysis of the above projects made it possible to identify three design methods derived from nature. The first is a synthesis of the exterior features that led to the creation of the *River Building* – a building that, through its reflective, winding roof, expresses the shape of a river, resulting from movement and slope, reflecting the sky just like water - similar to the *Sumei* installation in Tokyo. The second method is applying the „principle of operation” found in nature, which led to the creation of *House NA* by Sou Fujimoto - a house that does not look like a tree, but the way it is used reminds of it. The third method was noticed during the analysis of Ishigami’s Serpentine Gallery pavilion. Although the architect refers to a natural phenomenon, which is a rocky hill, he also challenges the basic feature of stone, which is its weight. A similar impression is found in the *HOPE* project in Copenhagen (white, massive „clouds”) and the *Kokage-gumo* installation in Tokyo (wooden clouds).

All the designs described in this article were made by Japanese architects who are distinguished by the ability to subtly draw inspiration from nature. This sensitivity has touches the understanding of the notion of space in the Land of the Rising Sun, as containing both the inside and the outside, embodying its surroundings. The characterized architectural realizations owe their uniqueness not only to the nature and beauty of landscape, but mainly to the creativity of the architects who chose to draw inspiration from an given fragment of the landscape and transformed it into an original, fully usable space that is unique in its own way.

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