

7.1 Case study: the power of the centre in Lloyd Wright's architecture

Objective

This case study shows how the identification of a centre can inspire and direct development and fruition of a design. We will refer to Lloyd Wright's concept of organic architecture by illustrating how he applied the power of the centre design strategy to many of his iconic buildings and through the ideal of organic architecture.

Background

Frank Lloyd Wright is a monumental figure in contemporary architecture. We have already analyzed one of his most famous works, the Guggenheim museum in New York, in chapter 7. Over the years, he developed and practiced a new paradigm for architectural design that he referred to as 'organic architecture'. Although he never defined the concept formally, the meaning of organic architecture is sort of self-explaining, just looking at some of Lloyd Wright's buildings: the House on the Waterfall, the house he designed as his residence, Taliesin East, and its reinvention and transformation into an Architecture Educational Center in Taliesin West.



Figure 7.1a - Taliesin East



Figure 7.1b - Taliesin West

Observing the pictures of these and other buildings, it is clear to see the variety of solutions adopted by Wright in terms of structure, materials, and typology of construction, so much as that it might be hard to attribute in first inspection all of these designs to a same creator.

This variety stems from the key tenet of organic architecture, i.e. that the building must be designed in accordance with the natural characteristics and forces of the landscape in which it will be located. In Wright's words 'Nor cherishing any preconceived form fixing upon us either past, present, or future, but instead exalting the simple laws of common sense ... determining form by way of the nature of materials.' (Wright, 1954, p. 3).

Of Taliesin Studio, located in Wisconsin in the cold and northern region of the Great Lakes in the US, he said that it was not a house on the hill but a house off the hill, meaning the building was supposed to be an emanation of the natural place it was built on. The building plan is highly irregular because it follows the profile of the hill crest, the colours and materials are respectful of the natural surroundings, both inside and outside. It feels like the various elements of the constructions have been dispersed on the ground by some irrational or, better, super-rational, but understandable intent, very much like rocks and trees and other natural elements are 'arranged' by nature in place.

Despite the diversity of materials, colours, function, and overall design, Taliesin West inspires the same feeling of a building in total connection with its environment, this time the arid and sunny desert of the American southwest.



Figure 7.1c - the House on the waterfall

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The house on the waterfall is considered Lloyd Wright's masterpiece and one of the most beautiful houses ever designed. The key intuition was to locate the building at the top of the waterfall. An ordinary architect would quite likely position the house in front of the waterfall so that the owner could have a view over the beautiful scenery. There is the hidden assumption that natural and human spaces must be separated in this more conventional solution. A building must create a boundary between the artificial but safe and civilized human world and nature's dangerous and chaotic world. Lloyd Wright tried to go beyond this separation and overcome the alienation of being separated from nature. The house is a combination of a few layers, formed by two orthogonally juxtaposed terraces, laying over the natural rocky concretions from which the river jumps to proceed with its course. The house is based on this very intuitive mental image of a waterfall.

Another element these three buildings have in common is the consistency of the internal design, with the same principles of organic architecture and the attention towards the maximization of natural lights and its spreading across the building environments.

Why does this variety and lack of the artificial order created by conventional building design not disorient us? Why can we absorb, and more importantly enjoy, the complexity of these buildings? One key reason is that Lloyd Wright's architecture exhibits an understandable order from visual or functional centres. The rest of the structure and the organization logic of the space germinates from such centres.

Let's consider the house on the waterfall. We suggest you watch the beautiful 3D rendering video created by Vila and freely available on Vimeo (see references for the link). Although we mostly see pictures of the exterior of the building, it is its interior that is really key to understanding the way the house is designed and functions. The centre of the house is the living room, a large open space surrounded for the most part by windows overlooking the outside nature. Open spaces may sometime be disorienting because they lack a recognizable structure. Not so in the house on the waterfall. The organizing centre is the massive fireplace built directly on natural rocks on which the house is literally grounded. The fireplace is the hinge around which the whole construction revolves and from which it seems to grow organically. It is a structural hinge, because the house is built around the rocks surrounding the river's bed. However, it is also the functional hinge as any large living room tend to be in a house, and the symbolic hinge because the fireplace is the heart of the house (the Latin word 'focus' means fire but also home and household).

Other than static points of references, centres such as the fireplace also have a dynamic function as they become points towards which movements and actions in the use of the space tend to gravitate.

Instructions

1. Visit the Frank Lloyd foundation official website, containing pictures and links to his major works, <https://franklloydwright.org/work/> Select one of his works and do some additional online research to get more pictures and possibly the building plan and a video with a virtual tour such as this one for the Robbie House <https://www.youtube.com/watch?v=NCjLqPLsYh4>

2. Try to identify the visual/functional centre(s) that define the structure of the whole building.
3. Imagine moving inside and around the building and trace your imaginary walk to see which centres attract your attention and direct your movements.

References

Adams, J. (2017), Frank Lloyd Wright: Man Who Built America (2017),

<https://www.youtube.com/watch?v=1O7ax1KhJNM>

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Vila, C. (2008), Fallingwater, 3d tour available at <https://vimeo.com/802540>