Learning From Nature: Biomimetic Design in Architecture

This technical writing which shows a particular description is written for the engineers to follow the biomimetic design in architecture. I believe that this topic is very important because we improve ourselves that inspired by nature. Nature has used up billions of years, fixing and resolving a majority of the difficulties. We as humans are covering today; it is only reasoned for us to acquire knowledge from nature's existing solutions to solve our problems of sustainable design. This research aims to inspect biomimicry in architecture as a possible solution to develop structure design. Basically, to construct a developed structure, we need inspiration from animals, flowers, and all non-living things around us. Nowadays, biomimetic design improves somehow in architecture, but we need to advance more. In these body paragraphs, I will show a different type of architectures that inspired by nature.

Bricks Grown From Bacteria: The bio

MASON company has developed a method to create bricks that only from bacteria and naturally abundant materials by employing microorganisms. Every year, the factories create around 1. 23 trillion bricks which mean produce more than 800 million tons of CO2. Therefore, "40% of global carbon dioxide emissions are linked to the construction industry. " If we make bricks by this way, we do not have negative impacts on the surrounding environment. The process is that bacteria show provide an environment to form in combination with nitrogen, calcium, nutrient. Also, these sources permit the development of natural cement in "ambient temperatures. " Finally, for five days, produce a precast material. The other method of creating bricks is in this way that everyone can construct. You need a box in shape of rectangular. Then, fill it with sand, and spread a lit bit bacteria. Finally, leave it until the bricks get hard.

The Gherkin Tower From Venus Flower: The famous tower 30 St Mary Axe, known as the Gherkin, immediately is the most recognizable tower in London. It becomes more famous because of the hexagonal skin which inspired by Venus Flower. The high of this building is 180 meters. This shape of this building has many advantages. First, because London has the underwater environment, they design the "fibrous lattice" to be diverse level to disperse pressure on the organism. Also, the circular structure decrease pressure due to strong water currents. Second, the structure of Gherkin designed to reduce wind load on the building, and they get the idea from the strangeness of the Venus flower. Third, because of the shape of the building, the engineers decided to cover the whole building by a steel frame and a glass. Therefore, they place the energy-saving system which permits the air to flow up through coiled wells. Bacteria and Flower are two examples of biomimicry. I hope the idea of biomimicry spread around the world for these reasons. First, we can get benefits from our nature. Second, we can save nature by reducing carbon dioxide while making bricks.