

THE POTENTIAL OF BIOMIMICRY IN TOURISM



While the tourism industry is just starting to explore the benefits of drawing inspiration from living organisms, it is worth noting that various means of transportation have been observing animals for a long time to improve their designs. Nowadays, this practice of bio-inspiration is gaining momentum in developing more sustainable tourism.

What Is Biomimicry?

Biomimicry is an innovative approach that involves observing nature to find sustainable solutions without relying on technology. **On the other hand, bio-inspiration may not necessarily prioritize sustainability.** The renowned Spanish architect Gaudí often used bioinspiration in his creations. However, biomimicry aims to prevent negative impacts on nature and seeks to find new functionalities in the natural world rather than innovating for the sake of it.

Biomimicry is a concept that is increasingly used in tourism, especially in transport and on-site mobility, accommodation, catering, activities, and information/flow. Transport, particularly aviation, has been inspired by nature for a long time. Inventors like Leonardo Da Vinci and engineer Clément Ader were inspired by birds and bats.

Today, planes come equipped with winglets inspired by storks and eagles. The winglets reduce the aircraft's drag, save fuel, and reduce CO2 emissions. Lufthansa and Boeing, on the other hand, have been inspired by the skin of sharks, which is why they have developed an Aeroshark bionic adhesive film that attaches to the fuselage and nacelles of aircraft engines. This reduces friction resistance, leading to lower fuel consumption.

On the train side, the fisherman's beak inspired the Shinkansen in Japan. The train's unique design reduces compression when passing through tunnels at high speeds, improving aerodynamics and passenger comfort and reducing ear pain. Moreover, the fins of dolphins and fish have inspired the maritime world, leading to the development of propeller-less ships that are less harmful to the seabed.

Tourism Interested in Biomimicry

More and more people are starting to consider the long-term impact of tourism. However, many questions still surround this topic, including whether sustainable tourism experiences are desirable. For instance, eco-tourism may seem less appealing and immersive than other forms of tourism. But with the help of biomimicry, it is possible to create innovative and engaging experiences. Even though activities like picking up trash or observing snails may not be very Instagram-worthy, it is up to each destination to make these activities more attractive to tourists. Every tourist has a unique story to tell, and it is important for destinations to support and finance innovative tourism projects that meet certain conditions. In Brittany, for example, a tourism innovation unit called TiHUB provides such support.

Sustainable tourism should not discourage people from traveling but rather aim to reduce environmental impact. Unfortunately, the sector has seen many instances of false good ideas and

a lack of foresight, leading to negative consequences for our ecosystem. However, biomimicry offers a promising approach that considers all aspects of our surroundings and strives toward a desirable future without generating misleading ideas.

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