

Biomimicry

2 x 60'

EPISODIC BREAKDOWN

1. Biochemistry

The most dangerous types of snake venom are used successfully in the medical field. We have discovered natural blood thinners in the saliva of bats and anesthetic properties in that of mosquitos. There are antibiotics in the honeycomb made by bees, and cryogenic substances in the blood of amphibians, which have led us to dream of lengthening our lifespans. Water-soluble oils and bio-adhesives can be reproduced by modern engineering methods with results that are increasingly efficient and eco-friendly.

While we still have much to learn, a new kind of science is coming to life, one which is adopting nature's most ingenious designs – biomimicry! And it takes its first inspiration from bio-chemistry.

2. BioGeometry

The lines and shapes of the natural world seem blurry and chaotic, as though they were all the result of a huge mess. But only at first glance! Are there no straight lines in nature? What about right angles? Don't these exist? Plants and animals have evolved with shapes that are so strange, whimsical and curious as to suggest that there were no rules governing each individual except the free adaptation to the world around him. But there are rules! Rules that mathematically govern the spiral growth of a shell, or the shape of leaves and trees... The number of petals on a flower is no accident, nor is the arrangement of feathers on a bird's wing. Nothing is random. It is not coincidence that dictates the spherical shape of many seeds and fruits, or the pattern in a spider web, or the way ants move. A detailed look shows us that everything obeys a certain organizing principle. With the possible exception of the scales on a crocodile's jaws...

Wild geometry may not seem as perfect as our own. Or is it that we are confused, and it is our geometry which is too strict?