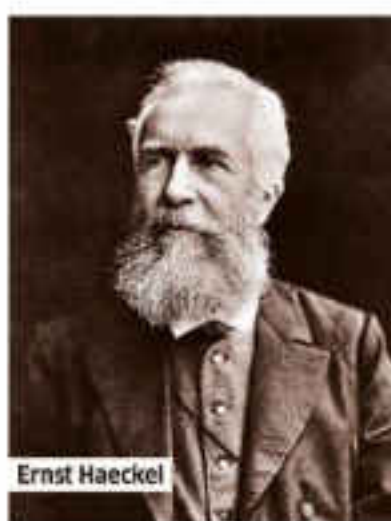




Haeckel's elegant world of flora and fauna

Artistry under the lens

Renowned German naturalist, philosopher and illustrator Ernst Haeckel found beauty in the most unlikely of creatures, writes Giridhar Khasnis



Ernst Haeckel

A s a passionate observer of the natural world, Ernst Heinrich Philipp August Haeckel (1834-1919), explored the domains of science, art and philosophy, leaving an indelible mark on each of them. "All the wonderful phenomena of nature around us, organic as well as inorganic, are only various products of one and the same original force," he proclaimed. Haeckel wore several hats. Zoology, morphology, embryology, philosophy, medicine and marine biology were among his many interests. He even introduced several terms into the vocabulary of science.

Way back in 1866, he was the one to invent 'ecology' (oekologie in German) to describe the 'economies' of living forms. In 1868, he coined the term 'stem cell' to describe a fertilised egg. He was also reportedly the first person to use the term 'World War I' with his statement published on 20 September 1914 in the journal Indianapolis Star. In his long and illustrious career, the German naturalist published several hundred journal and newspaper articles, besides authoring 18 major books. An influential teacher at his alma mater, the University of Jena, he mentored numerous students who became renowned in their own right. When he retired as an academic from Jena, after almost 50 years in office, he was 75 years old.

Advocate of Darwin's theories

Haeckel was only 26 when he read the German version of Charles Darwin's



'Discomedusae' by Haeckel

book 'On the Origin of Species'. Deeply impressed, he became an aggressive advocate of Darwin's theories and mechanisms of biological evolution. He relentlessly undertook to defend and propagate the evolutionary theory in Germany and elsewhere through a series of publications and presentations. Thanks to his vociferous support and zeal, he was called the 'German Darwin'.

Haeckel and Darwin (1809-1882) met on more than one occasion in London. They remained close personal friends and treated each other with great respect and admiration. According to Haeckel's biographer Robert J Richards, more people at the turn of the century learned of evolutionary theory from his (Haeckel's) pen than from any other source, including Darwin's own writings. Haeckel received many awards and honours including the 'Darwin Wallace Medal' presented by the Linnean Society of London in 1908.

Fusing science and art

As a researcher, Haeckel carried out many zoological expeditions. They took him to the highest mountaintops as well as the deepest oceans, resulting in path-breaking monographs such as Radiolaria (1862), Siphonophora (1869), Monera (1870), Calcareous Sponges (1872), Deep Sea Medusae (1881), and Deep Sea Keratosa (1889).

In the midst of such intense research of flora and fauna, he zealously drew and painted thousands of species and discoveries. Being a gifted artist, he was able to deftly combine his scientific thoughts with immaculate illustrations. "Haeckel's work was as remarkable for its graphic precision and meticulous shading as for its understanding of organic evolution," write Rainer Willmann and Julia Voss, authors of The Art and Science of Ernst Haeckel. "He emphasised the essential symmetries and order of nature, and found biological beauty in even the most unlikely of creatures."

Beginning in 1889, Haeckel published 100 prints in a series of 10 books called Kunstformen der Natur (Art Forms in Nature). The lithographic plates in Kunstfor-

men showed a plethora of unusual life forms of microscopic life including jellyfishes, starfishes, calcareous sponges, star corals, barnacles and other sea life; mosses, lichens, red algae, ferns, fungi, orchids and other plants; and turtles, moths, spiders, bats, frogs, lizards, hummingbirds and antelopes.

Considered a landmark of applied art, the amazing forms depicted in the book had a significant influence on decorative design at the time. The richly coloured and impeccably rendered images were seen to be at the intersection of art, biology and mathematics. His transcription of geometric shapes and natural forms held an immediate emotional appeal to the viewers.

Haeckel's ground-breaking biological art went on to change scientific illustration forever. It also influenced generations of artists. Among them are such eminent names as Leopold and Rudolph Blaschka (glass sculptors of undersea creatures-marine invertebrates); Henry Moore (British artist and sculptor); René Binet (French painter and architect of the Art Nouveau); Charles and Ray Eames (American industrial designers); and Karl Blossfeldt (German photographer, sculptor and teacher).

Haeckel's artistic talent was not only admired during his lifetime, but also is revered to this day. "Each organism Haeckel drew has an almost abstract form as if it's a whimsical fantasy he dreamed up rather than a real creature he examined under a microscope," says Katherine Schwab, editor at Fast Co. Design. "His drawings are a reminder of the intricacies of the world around us, and how nature is the ultimate designer."

Florian Maderspacher, Senior Reviews Editor of Current Biology, feels that Haeckel's images revealed a beauty that transcended purely technical reproductions. "More than in his taxonomic studies or in his ardent, evolution-infused monistic quasi-religion, Haeckel's legacy lives on in the visual domain."

Respect for nature

Through his work, Haeckel sought to lay emphasis on valuing the universal laws of nature and respecting the infinite variety of natural forms. While indicating the true place of man in nature, he sought to dispel the illusion of man's supreme importance and the arrogance with which he sets himself apart from the illimitable universe. "A false sense of honour dominates our social life," he wrote. "The true honour of man or woman consists in their inner moral dignity, in the determination to do only what they conceive to be good and right."

A self-confessed atheist, Haeckel denounced dogmatic religion through his advocacy of evolutionary principles. He fiercely propagated monism which sought to unite materialism with spiritualism in a natural and harmonious system. He asserted that where faith commences, science ends.



PHOTO FEATURE

Artist Michelle Poonawalla's works are evocative of new technologies in art

A surreal decoding

We are born with nothing and we will return to nothing," says Indian visual artist Michelle Poonawalla pensively, of the intricacies of her kinetic artwork titled 'From Dust to Dust' that had spectators enthralled at the Art Lab held in World Art Dubai recently. A surreal decoder of the ongoing pandemic, Michelle's creation depicts the slow and precise disintegration of a single rose before the petals metamorphosize into butterflies.

Pivoted on the universal theme of how nature humbles humanity, the artwork is a labour of love shaped carefully using a digital stop motion video technique.

The contained hues of the rose, the floral artistry in the precise assembly of petals and sepals that unfurl slowly, starting from a geometric, non-cohesive cluster, showcase her keen and astute eye for detail.

"Even though my artwork shows the disintegration of a rose, it was important for all individual elements composing the visual language to be inherently beautiful," explains



Michelle Poonawalla in her studio

Michelle. "Each aspect of the rose is made up of tessellating butterflies. The butterfly has been a consistent motif in my works, symbolic of metamorphosis and reminds me of the fragility of life, of freedom, hope and love." Michelle's short digital video titled 'Circle of Life' showcased at the Mediations Biennale in Poland, brings in a brilliant interplay of light, against a backdrop of ruddy tones and a moving butterfly. The play of light and shadows form an intrinsic part of her artworks, conveying her immersive feelings and experiences.

From canvas and mixed-media to digital mapping and stop-motion technology, it is a constantly evolving realm for Michelle who divides her time between London and Pune. "As an artist, my biggest learning has been to keep growing. I constantly challenge myself to experiment with new technologies and methods — from large installations with motion sensors and projection mapping to new digital video works," she shares. "I feel it is vital to embrace new technologies to bring in different dimensions."

SHILPI MADAN



From 'Dust To Dust' depicts the disintegration of a rose



PLAY BY EAR

Magic in 16 minutes

I do not go by listicles, but a recent one caught my attention, despite myself. It was a log of the best tracks of both the Indian and Pakistani versions of Coke Studio. (Readers of this column would have a fair idea of how much we dig the gems that have emerged from this musical initiative and why this list was thus hard to resist). So, at the very top of this list was 'Kangna', the undisputed Kohinoor of Coke Studio Pakistan Season 4. Putting this 16-minute classical Qawwali jam session right on top is bravery of the right sort; for 'Kangna' is not really everyone's cup of tea. But, those who have drunk from this cup...ah they would know what we are talking about.

The renowned Qawwali brothers, Fareed Ayaz and Abu Muhammad, not only brought to Coke Studio their rich tradition of impromptu singing, but also transformed the entire platform into a reverberating spiritual space — their unbridled singing, the utter freedom the genius producer Rohail Hyatt gave the brothers, the complicated 10-beat *thap taal* the Qawwali is sung in, the sheer restraint of the house musicians who stuck to a single bass, all make 'Kangna' one of the most unusual and fascinating tracks to emerge out of Coke Studio. In an interview, Rohail Hyatt had admitted that none of the musicians present really knew where the song would take



A screengrab from the video

them (nor when it would end), but they went along and thank god, they did. For in its 16 minutes, 'Kangna' effortlessly encapsulates all the splendour and magnificence of the 700-odd years of the Qawwali tradition.

RASHMI VASUDEVA
Play By Ear showcases a potential earworm every week for you, the discerning listener, who is on the hunt for some musical serendipity.

