

PREMISE

ART / ENGINEERING divide
is artificial

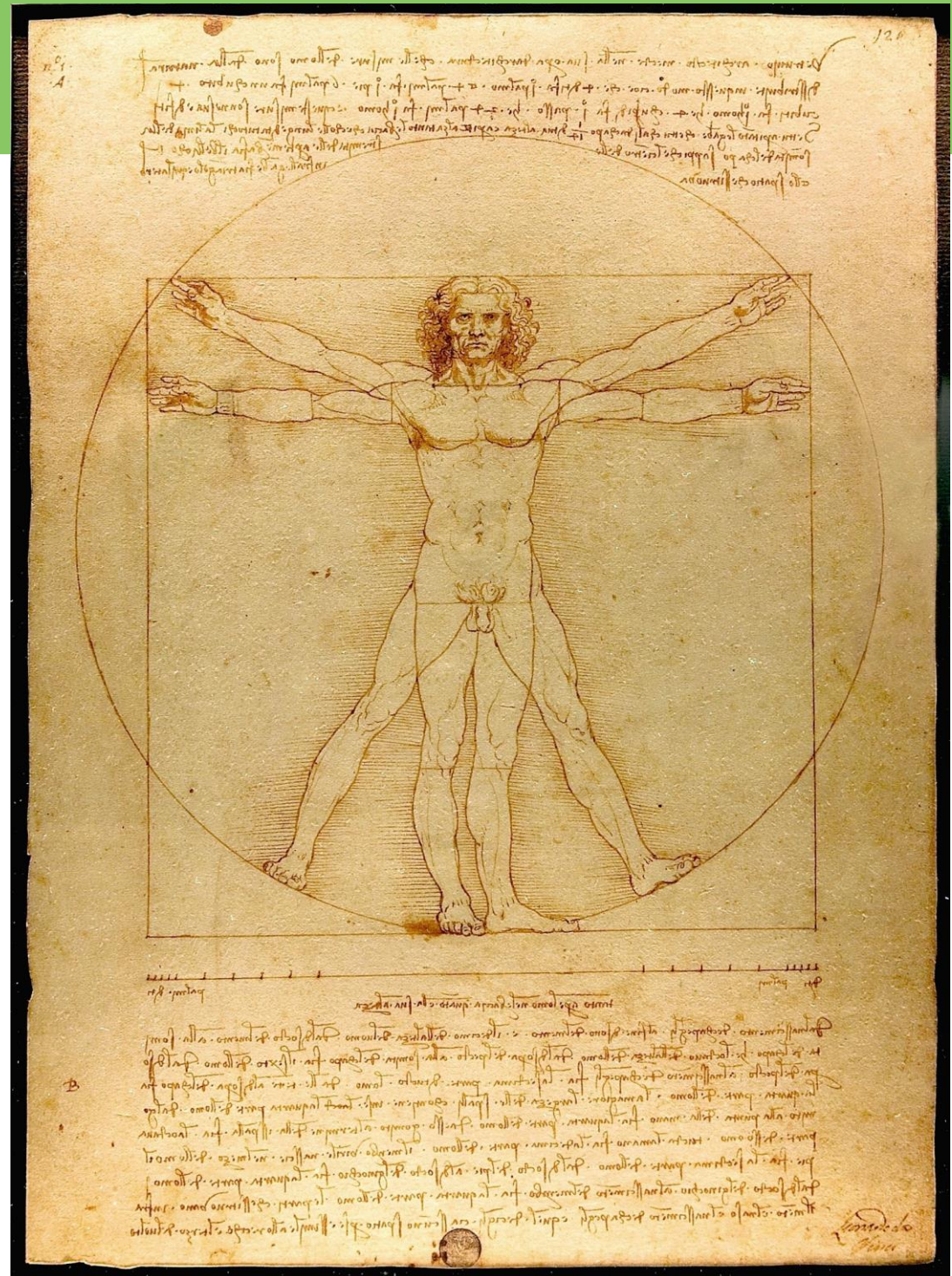
ART in ENGINEERING is as real as
ENGINEERING in ART

The integration of ENGINEERING
PROCESS with an ART LENS is a
process called DESIGN - creating
products that users like

REVISIT

The VITRUVIAN MAN By Leonardo Da Vinci

The drawing is based on the correlations of ideal human proportions with geometry described by the ancient Roman architect Vitruvius in Book III of his treatise *De architectura*.



REVISIT



Madonna and Child by Duccio,
tempera and gold on wood,
1284, Siena



Award-winning and Gold certified Green America business, Natural Earth Paint, uses natural earth and mineral pigments and organic ingredients to make completely safe, sustainable, and beautiful art supplies for children and fine artists.

THE TECHNOLOGY OF PIGMENTS FOR THE ARTS KEEP ART ALIVE.

REVISIT

The Gold State Coach is an enclosed, eight horse-drawn carriage used by the British Royal Family.



ART EMBELLISHING TECHNOLOGY SERVE CEREMONIAL BEYOND FUNCTIONAL PURPOSE

REVISIT

ENGINEERING TAKES PRECEDENCE OVER AESTHETICS FOR PRODUCTION EFFICIENCY

The The Model T was Ford's first automobile mass-produced on moving assembly lines with completely interchangeable parts, marketed to the middle class. It was produced from October 1, 1908, to May 26, 1927.

The MODEL T



DESIGN

Massive scale manufacturing gave rise to Industrial Design

Increased buying power of consumers led to stratified market segments

More market segments led to focused product styling

Design

STREAMLINING WAS USED AS A DESIGN HANDLE, FUNCTIONAL OR NOT

Famous industrial designer Norman Bel Geddes wrote in 1932: "An object is streamlined when its exterior surface is so designed that upon passing through a fluid such as water or air the object creates the least disturbance in the fluid."

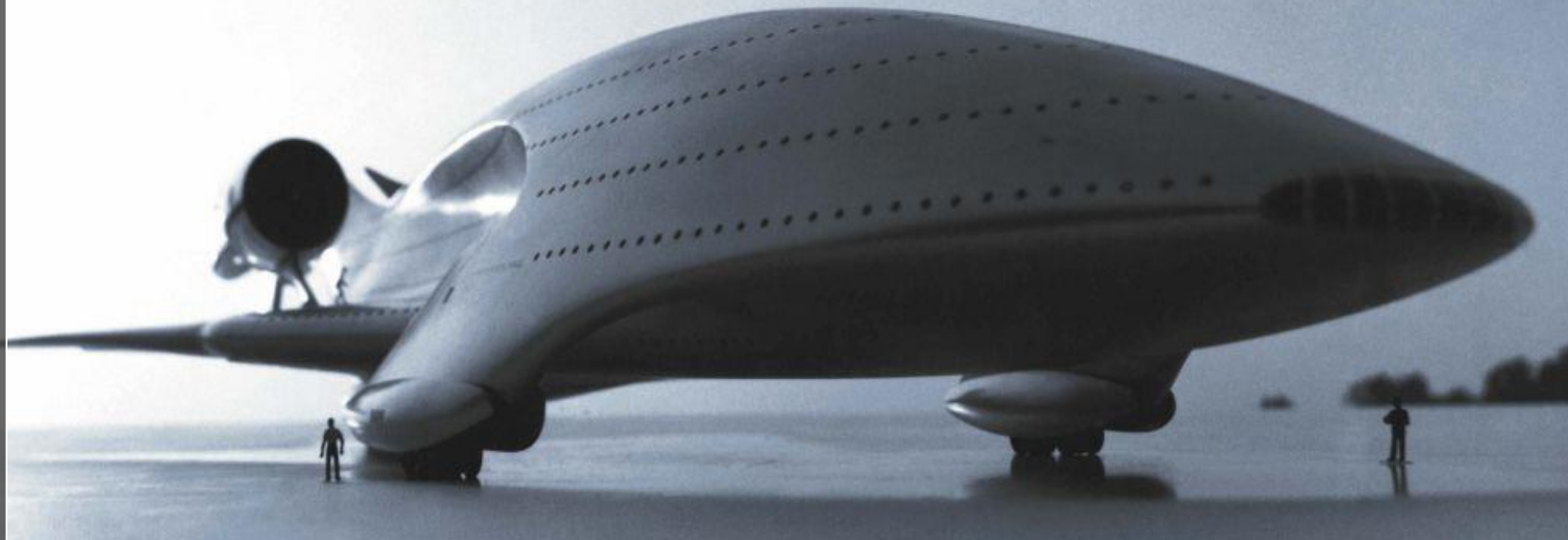
PROTOTYPE
1912



DESIGN

CONCEPTUAL DESIGNERS CREATED DESIGNS THAT CHALLENGED CONVENTIONAL ENGINEERING PRINCIPLES

AIRPLANE Concepts



These incredible works by 86-year-old German-born designer Luigi Colani

DESIGN

DESIGNERS ASSIGN ANTHROPOMORPHIC (EVEN ZOOMORPHIC) CHARACTERISTICS TO MANUFACTURED ITEMS



CAR CONCEPT
Crab Movement



A study co-authored by a Florida State University researcher has confirmed through a complex statistical analysis that many people see human facial features in the front end of automobiles and ascribe various personality traits to cars.

DESIGN

ARTIST-DESIGNERS ASSIGN ANTHROPOMORPHIC CHARACTERISTICS TO FUNCTIONAL ART



LUAL Kiln Art

The LUAL is a functional kiln in the form of a woman giving birth. An MFA project of Prof. Rita B. Gudiño, challenged both artistic and engineering skills.

Kiln Art is a new genre in the international field of Ceramic Arts and Design.



DESIGN

Products from natural and reused
resource



BAMBIKE:
The bike made
from treated
bamboo poles
(top).

GARBAGE:
An exhibition of
reused articles
By Mitch Shivers
(left).

DESIGN

ARTIST-DESIGNERS MANIPULATE HARD AND SOFT MATERIALS TO CREATE FUNCTIONAL ART



FORMED: Hard and Soft

Industria's metal Reef Panel won the Katha for Best Product Design (Home Décor). Manila FAME Oct 2017.

Issey Miyake
Pre-Fall 2017
Fashion Show



DESIGN

DESIGNERS SIMULATE NATURAL ENVIRONMENTS WITH ENGINEERED MATERIALS AND SYSTEMS



THE LOUVRE Abu Dhabi

Topped by an enormous signature dome of overlapping geometric lattices to simulate fronds of palm trees (>7,500 tons), the Louvre Abu Dhabi Museum, designed by French architect Jean Nouvel, opened to the public on November 11, 2017.

Design

DESIGNERS SIMULATE ORGANIC AND BIOMORPHIC FORMS FOR BUILT ENVIRONMENTS



AMSTERDAM
Footbridge Cafe

ART AND TECHNOLOGY

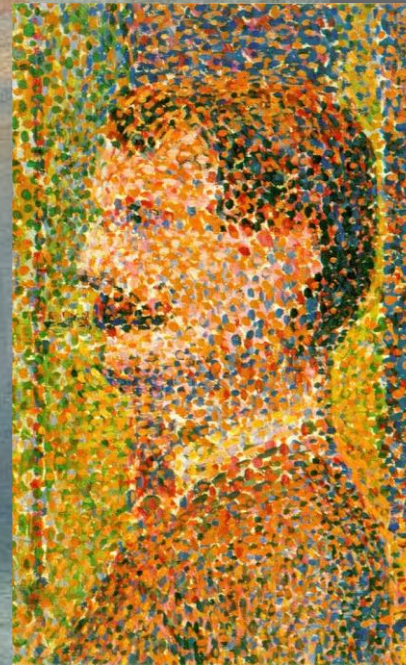
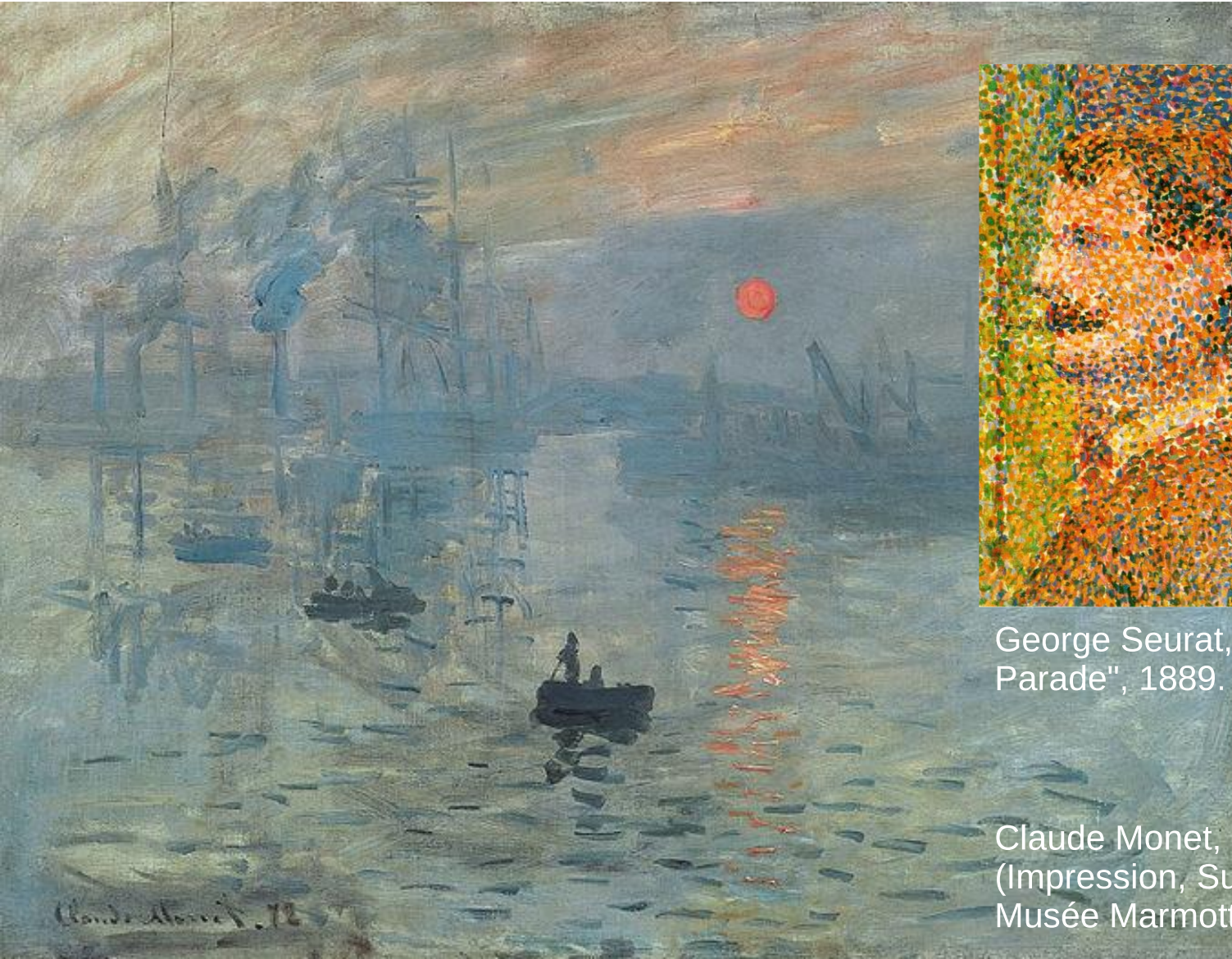
ARTISTS USE POSSIBILITIES OF TECHNOLOGIES

Artists are keen users of technologies. This part of the presentation will show some examples on the areas where use of technologies are best exhibited.

There are definitely many more examples.

ART AND TECHNOLOGY

ARTISTS USE POSSIBILITIES OF LIGHT AND COLOR



George Seurat, "La Parade", 1889.

Claude Monet, Impression, soleil levant (Impression, Sunrise), 1872, oil on canvas, Musée Marmottan Monet, Paris.

IMPRESSIONISM & POINTILISM

Impressionism and pointilism employed broken colour where the effect of blending colours occurs optically rather than on the palette, provoked by developments in color theory.

Art and Technology

ARTISTS USE POSSIBILITIES OF **LIGHT AND COLOR**

BENDING LIGHTS Laser Tricks

Lady Light is a "laser choreographer". She blends laser manipulation with movement, using her many years of experience as a professional trained dancer. In 2016, one of her videos went viral with over 10 Million views.



ART AND TECHNOLOGY

ARTISTS USE POSSIBILITIES OF **LIGHT AND COLOR**



RAFFY NAPAY
Family
Art Fair 2016

Threads replace ink in this style that earned the artist the Award of Excellence at the Philippine Art Awards in 2012 and which he would come to be known for soon after.

ART AND TECHNOLOGY

ARTISTS USE POSSIBILITIES OF **LIGHT AND COLOR**



RAFFY NAPAY
Family
Art Fair 2016

When lights are turned off, the threads glow changing the setting's mood.

ART AND TECHNOLOGY

ARTISTS USE POSSIBILITIES OF **LIGHT AND COLOR**



ANTON MAHILUM
Sunday Morning

Anton uses neon color paint for this piece. The subject matter is rustic but the technique used departs from the usual depiction of this subject.

Art and Technology

ARTISTS USE POSSIBILITIES OF **LIGHT AND COLOR**

LEEROY NEW



SM Aura Premiere for Astreopora (2015) an interactive sculpture installation that also serves as a shade for picnickers and a canopy for events

ART AND TECHNOLOGY

ARTISTS USE POSSIBILITIES OF **LIGHT AND COLOR**



MARK JUSTINIANI
Art Fair Philippines
February, 2016,
Link Carpark,
Makati City.

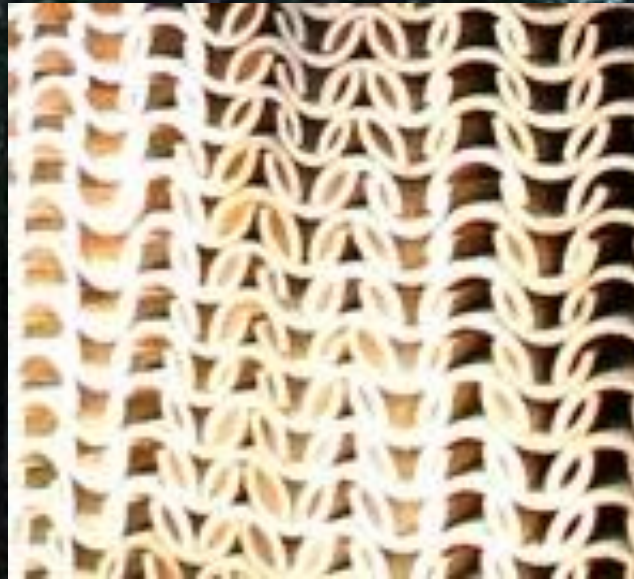
This installation art
uses lights and
mirrors to create a
perception of
continuous space –
also referred to as
infinity mirror room.

ART AND TECHNOLOGY

ARTISTS USE POSSIBILITIES FOR **ENVIRONMENTAL ART**

STUART FROST
Bamboo
Kamiyama, Japan
2014

This environmental art uses halved bamboo poles set in interlocking manner, decreasing in diameter towards the top.



ART AND TECHNOLOGY

ARTISTS USE POSSIBILITIES FOR **ENVIRONMENTAL ART**

STUART FROST

Natural Rotation
Bagabas Beach
International Eco-
Arts Festival, Daet
Philippines.
Bamboo and rattan
2010



ART AND TECHNOLOGY

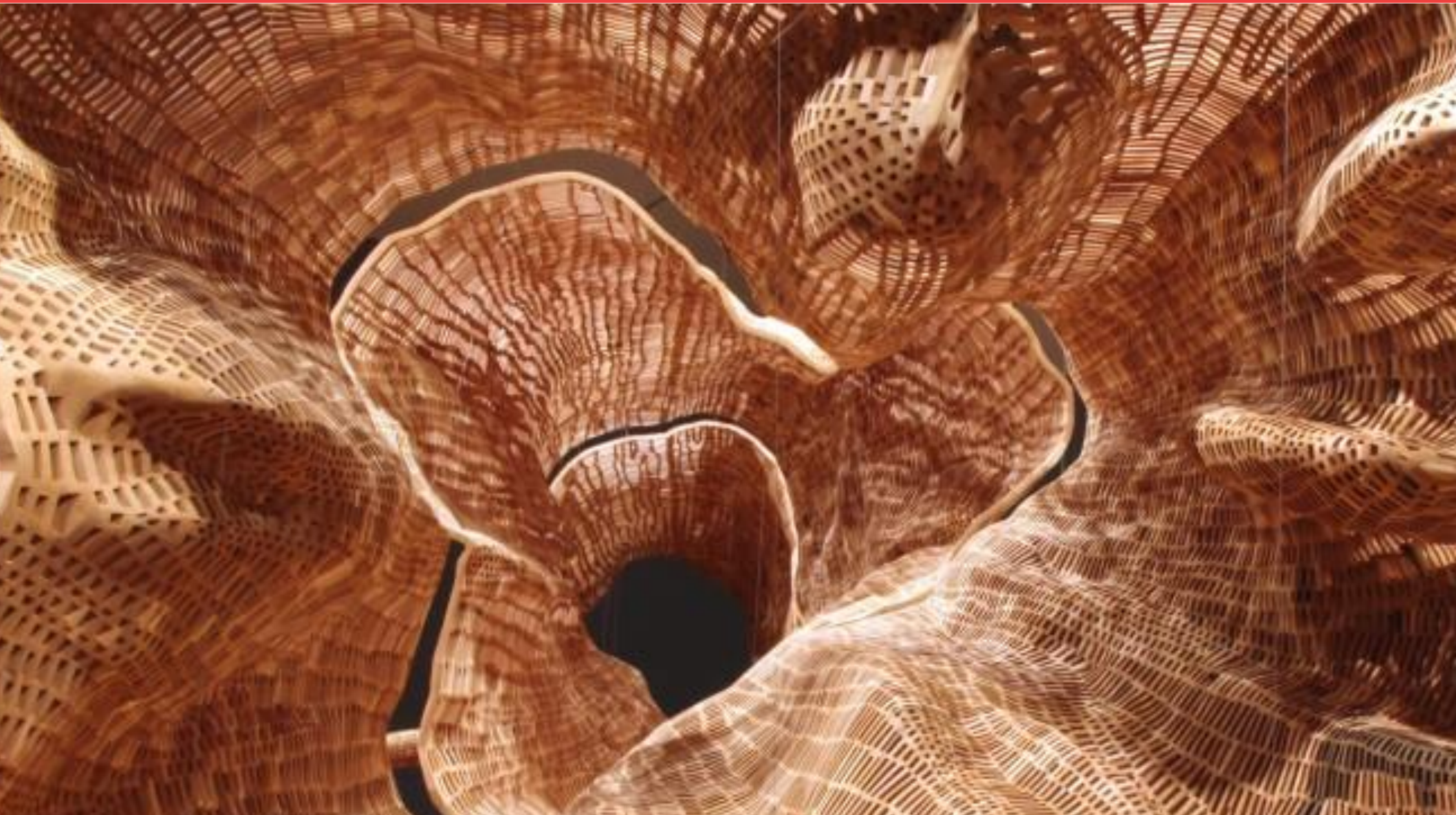
ARTISTS USE POSSIBILITIES FOR **ENVIRONMENTAL ART**



Sculptor John Grade and his supporters at the Mad Art Gallery invited hundreds of people in, to help assemble Middle Fork. It's now a 40-foot long model of a Western Hemlock, suspended inside a large gallery space that's just down the block from a Tesla Motors showroom and across from the Seattle offices of Microsoft.

ART AND TECHNOLOGY

ARTISTS USE POSSIBILITIES FOR **ENVIRONMENTAL ART**



ART AND TECHNOLOGY

ARTISTS USE POSSIBILITIES FOR **ENVIRONMENTAL ART**



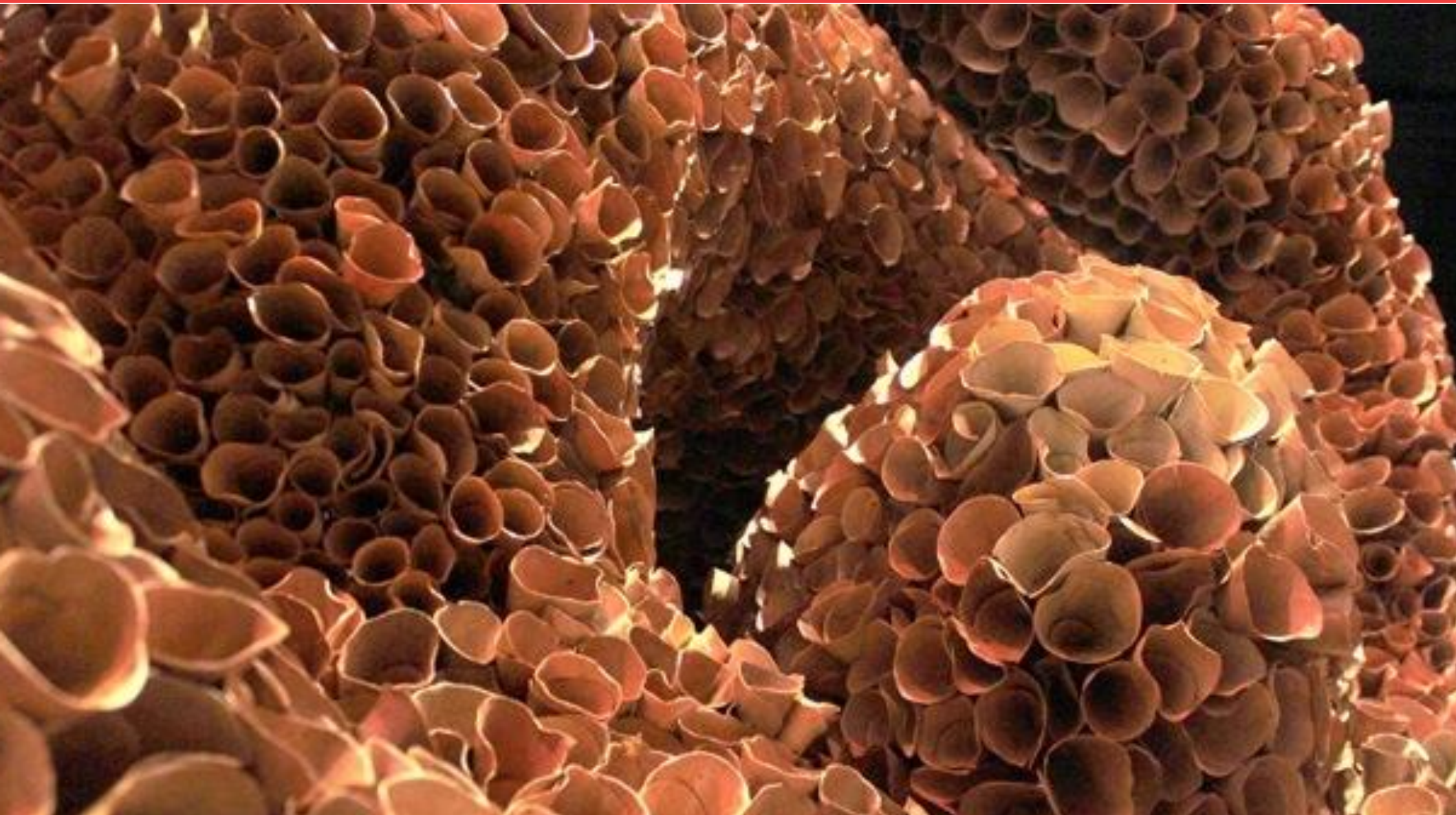
CRISTINA
ESCARIO
Dahon: Transcience
in Infinity

This massive installation is composed of formed dried leaves composed into a spiral following the Fibonacci sequence,

Cristina executed this show for her MFA degree.

ART AND TECHNOLOGY

ARTISTS USE POSSIBILITIES FOR **ENVIRONMENTAL ART**



ART AND TECHNOLOGY

ARTISTS USE POSSIBILITIES FOR **KINETIC ART**



RADIAL
PATTERNS

Kinetic art are sculptural pieces that are operated by motors or may be activated by natural forces such as wind or interactive motion.

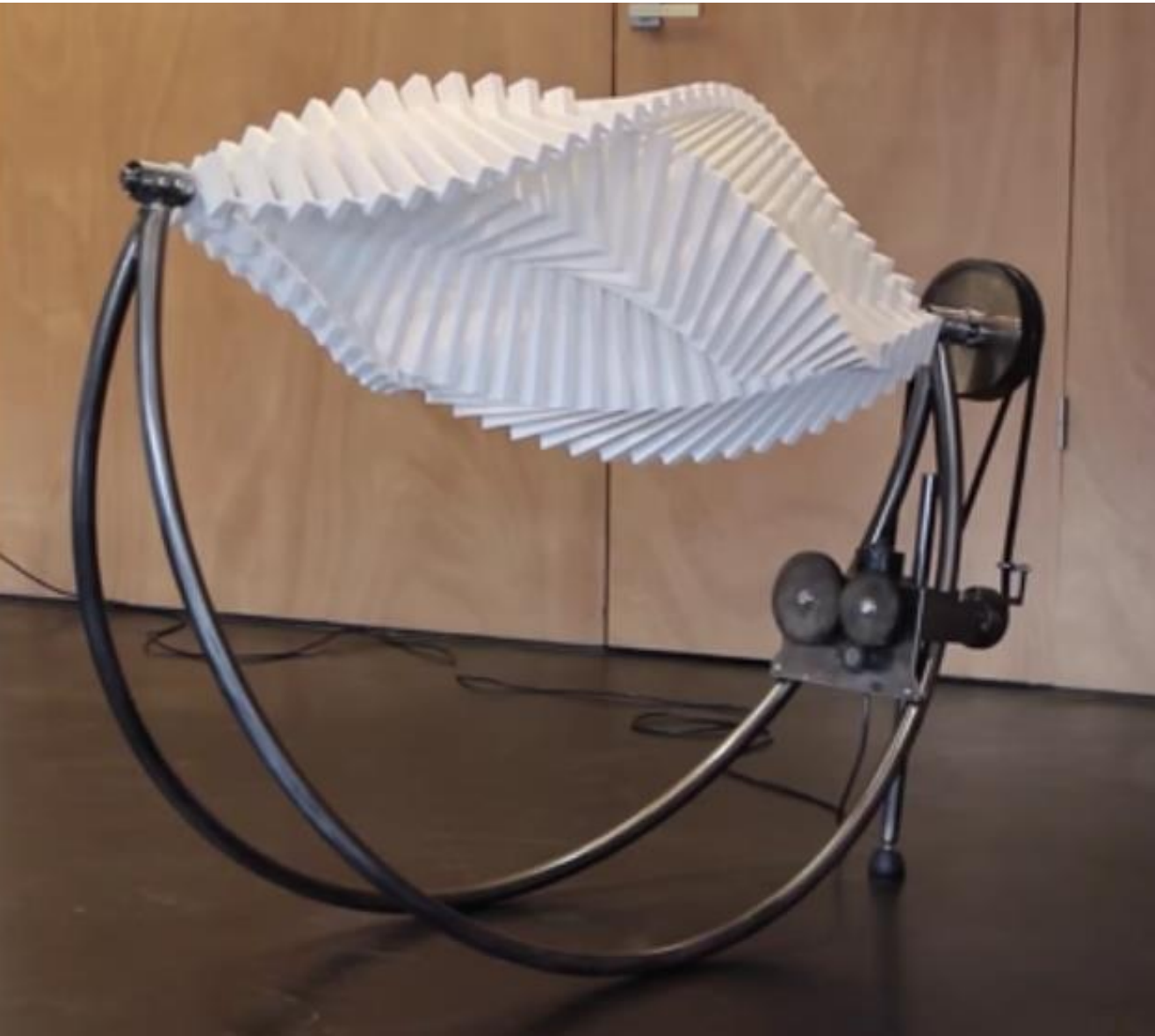
ART AND TECHNOLOGY

ARTISTS USE POSSIBILITIES FOR **KINETIC ART**



ART AND TECHNOLOGY

ARTISTS USE POSSIBILITIES FOR **KINETIC ART**



The sculpture may rotate along a single or multiple axes.

ART AND TECHNOLOGY

ARTISTS USE POSSIBILITIES FOR **KINETIC ART**

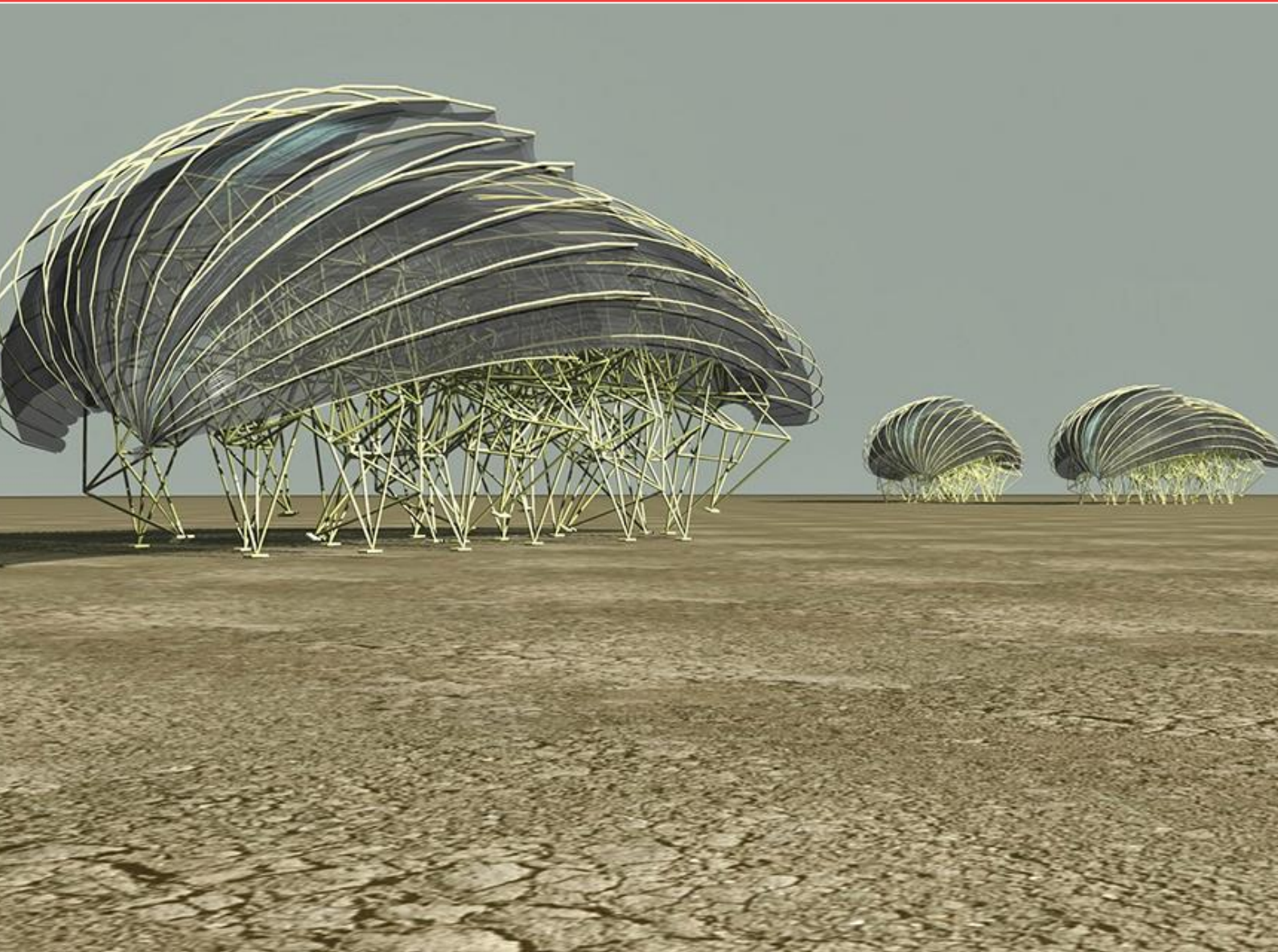


WIND ASSISTED LOCOMOTION

Theo Jansen is an artist from Netherlands. But not any kind of artist! He creates sculptures, or “skeletons”, as he calls them, that “walk on wind”! By using yellow plastic tubes, the artist attempts to create “new forms of life”.

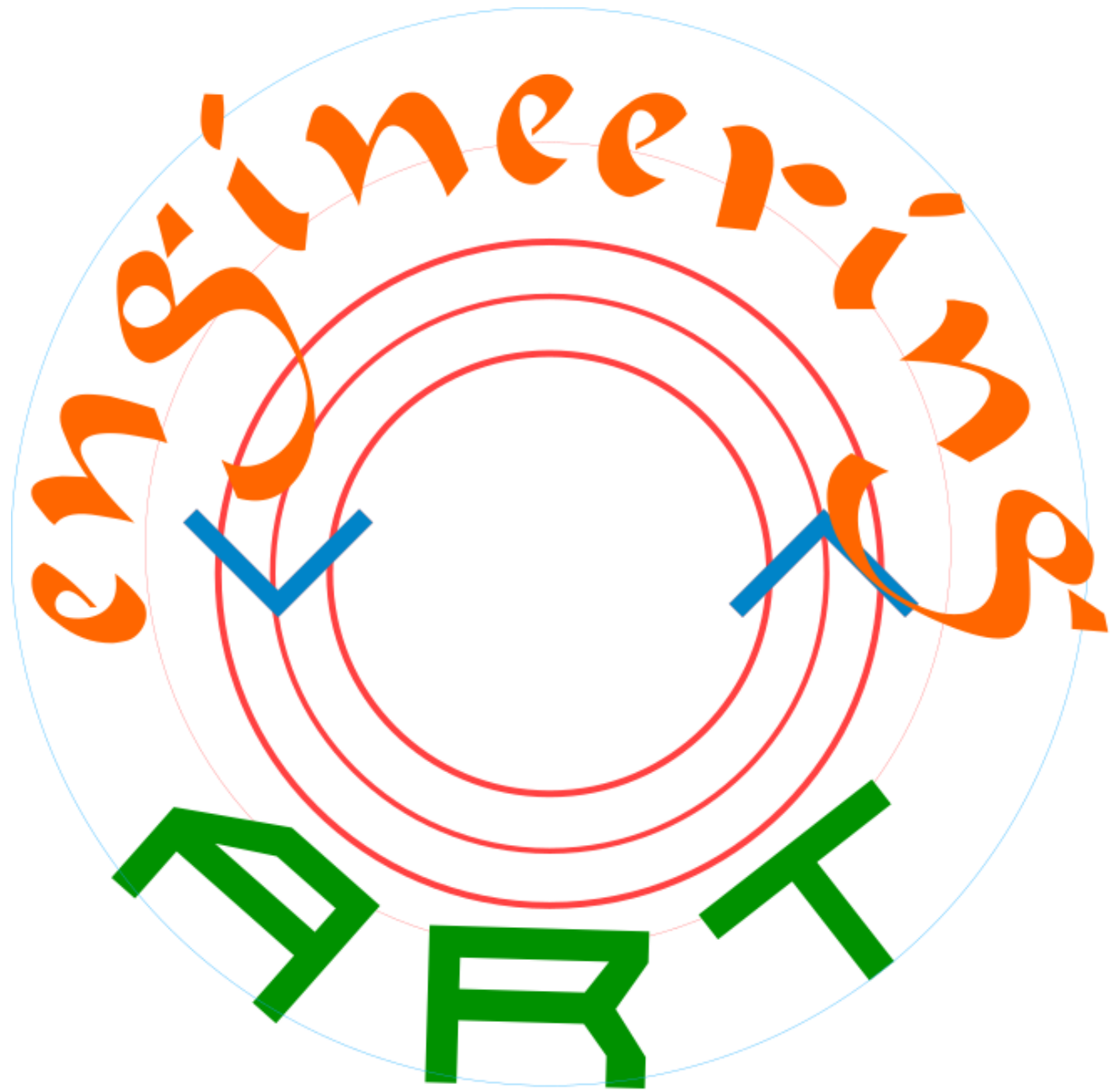
ART AND TECHNOLOGY

ARTISTS USE POSSIBILITIES FOR **KINETIC ART**



WIND ASSISTED
LOCOMOTION

These are artworks that have high engineering value. Will these concepts eventually find real world applications?



THANKYOU