

With Spiders and Space Dust, Tomás Saraceno Takes Off



Tomás Saraceno is taking over the whole of the Palais de Tokyo for its annual “Carte Blanche” show, with an exhibition all about floating on air. Credit...Julie Glassberg for The New York Times

By Kimberly Bradley Oct. 19, 2018

PARIS — “Oh, no! They swept her away!” exclaimed Tomás Saraceno, his eyes wide as he looked through a doorway at the Palais de Tokyo in Paris. The Argentine artist had fallen victim to the recurring phenomenon of a cleaning crew inadvertently removing art.

This time, though, the art was alive. The “her” Mr. Saraceno spoke of was a spider. The creature and its delicate web, spun in the doorway’s corner, were originally intended as collaborator and artwork in one. But all was not lost: 500 other spiders, summoned from around the building with specially calibrated tuning forks, are still tiny participants in Mr. Saraceno’s sprawling exhibition.

Titled “[On Air](#)” and covering 64,500 square feet, the show is the latest iteration of the Palais de Tokyo’s biannual Carte Blanche series, in which an artist is given free rein of France’s largest exhibition space for contemporary art. It runs through Jan. 6.

Mr. Saraceno sees the spiders and their silky homes as works of art in themselves — he has previously exhibited their webs, meticulously spun in Plexiglas boxes, as sculptures in galleries and museums.



Mr. Saraceno’s “Cosmic Dust and the Breathing Ensemble,” a 2016 collaboration with other artists at Haus der Kulturen der Welt in Berlin. Credit...Studio Tomás Saraceno, 2016

But as suspended networks, spider webs are also metaphors for Mr. Saraceno’s broader body of work, which includes floating sculptures, interactive installations, community projects and even experiments with solar-powered human flight. The artworks and the research behind them combine and connect disciplines far beyond the usual art-world fare: astrophysics, engineering, environmentalism, thermodynamics, biology, arachnology and musical composition — often several at the same time.

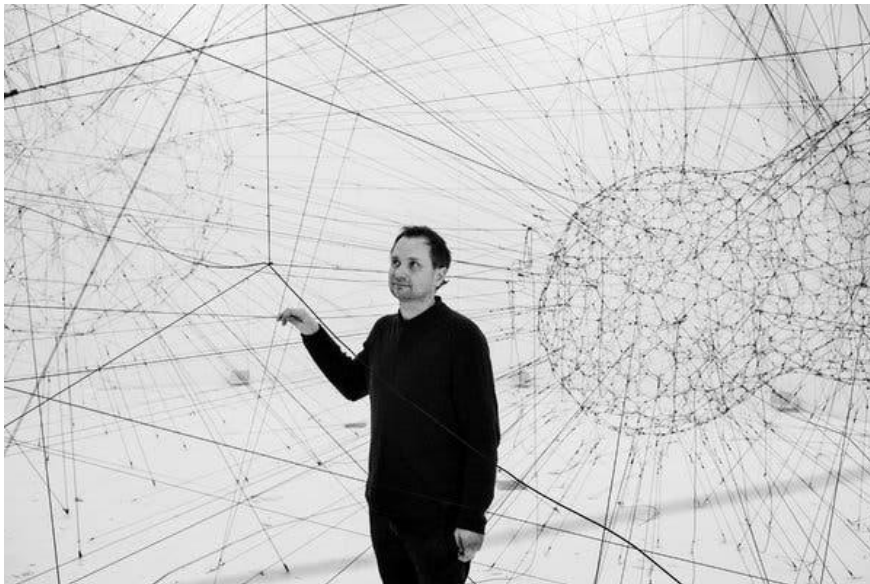
“He’s a great artist, comparable to Marcel Duchamp or even Leonardo da Vinci, who always thought outside and combined disciplines,” said Rebecca Lamarche-Vadel, the curator of the exhibition.

Art was not Mr. Saraceno’s first calling. He first trained as an architect in his native Argentina before moving to Germany in 2001 and attending the Städelschule in Frankfurt, where he began working with the art department as well.

Mr. Saraceno’s early exhibitions reflected visions of floating above the earth. “Cloud Cities,” at Berlin’s Hamburger Bahnhof museum in 2011, saw visitors giddily jumping around in transparent bubbled suspended in the main exhibition hall. (Another [interactive “Cloud City,”](#) this time in rigid mirrored Plexiglas, was installed on the roof

of the Metropolitan Museum of Art in New York in summer 2012.) A permanent installation in the K21 museum in Düsseldorf, Germany, called “In Orbit” is a web of carefully engineered nets and bubbles installed near the ceiling, from which brave museumgoers can observe visitors 80 feet below.

Architecture and art expanded into science and technology: In 2009, Mr. Saraceno studied at NASA. Since 2012 he has been artist in residence at the Massachusetts Institute of Technology, and he collaborates with a research institute of the Max Planck Society in Germany, and with the Natural History Museum in London.



Mr. Saraceno in his installation “Algor(h)i(y)thms” at the Palais de Tokyo. Participants are invited to play the work by gently plucking or sliding their fingers up and down the strings. Credit... Julie Glassberg for The New York Times

In “On Air,” a speaker stands on a pedestal in the Palais de Tokyo’s entrance, not far from where the rogue spider was swept away. A live audio stream from the European Gravitational Observatory, a European consortium that measures gravitational waves with a huge antenna outside Pisa, Italy, is transformed into a vibration meant to stimulate the spiders into action. “It’s an experiment to see if we can sense the frequencies of black holes colliding in space billions of years ago, as translated through a spider,” he said, suddenly bursting into laughter. “It’s a little absurd,”

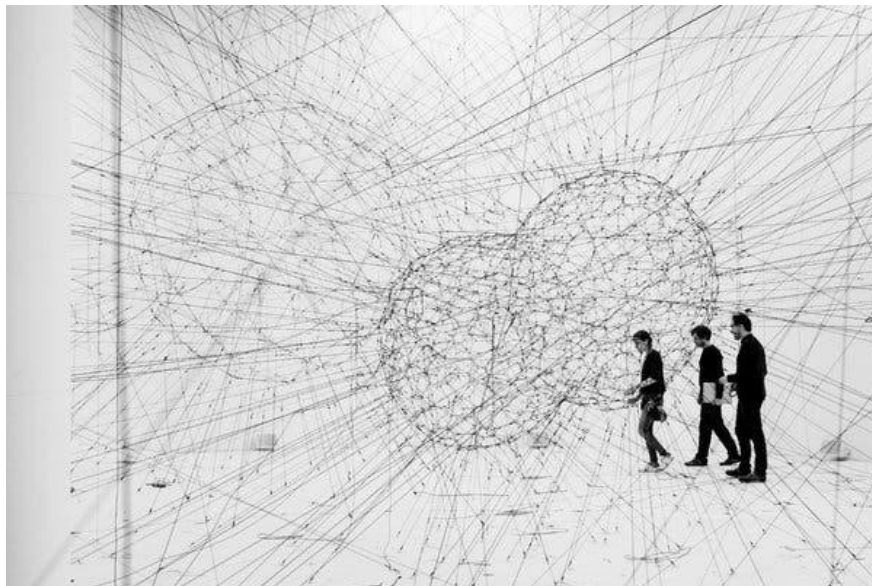
Vibrations and sounds also reverberate elsewhere in the exhibition. The show is “a synesthetic, bodily experience, a journey,” Mr. Saraceno said. “I’m moving away from the visual.” It’s also another connection to spiders, which can’t hear or see, as well as an exploration of alternative forms of sensory knowledge.

The exhibition program also features concerts using “digital spider web instruments” developed with experimental musicians like the composer Evan Ziporyn, who previously

“jammed” with some spiders in Mr. Saraceno’s Berlin studio. (Then, a spider began drumming with its legs in response to Mr. Ziporyn playing a bass clarinet; the sound was recorded with a laser vibrometer.)

A darkened room features a constellation of spider art, including web sculptures built in special frames as well as the common webs of the Palais’s own spiders. (Arachnophobes beware). Other artworks, like a giant balloon made of recycled plastic bags that fills an entire exhibition hall, address the issue of climate change.

So does Mr. Saraceno’s “Aerocene” project, an ongoing experiment in flying. At his studio in Berlin, where he settled in 2012, Mr. Saraceno is working on decoupling human flight from fossil fuels. There, he developed a series of triangular black balloons that gently rise into the air wherever they are released, powered by solar energy and infrared heat from the earth. The project, Mr. Saraceno said, asks the question: “How can we find a way to levitate, without any violence to the earth?”



Each of the strings in “Algor(h)i(y)thms” resonates at a different frequency. Some of these are audible while others are beyond the range of human hearing. Visitors are invited to lie on the floor, where those vibrations are amplified so they can be felt. Credit...Julie Glassberg for The New York Times

“Aerocene” may seem fanciful, but its potential was enough to interest European ministers, who invited Mr. Saraceno to present it at a European Commission mobility and transport conference in Slovenia in April.

In 2015, Mr. Saraceno set the record for the longest manned solar-powered flight, when passengers were attached to some of his sculptures. Mr. Saraceno likened his test flights, which have taken place in fields east of Berlin as well as in [New Mexico](#) and Antarctica, to “falling upward.” He said he hopes to orchestrate a manned flight in Paris during the exhibition run, weather permitting.

Mr. Saraceno's studio in Berlin has been preparing for the Palais de Tokyo show for two years. On a visit in late March, the studio buzzed with collaborative and multidisciplinary activity. Depending on the project, as many as 75 people work there, in a former factory complex in the eastern neighborhood of Rummelsburg. On the studio's top floor, Mr. Saraceno shares an office with a few spiders building intricate webs. Nearby, researchers were experimenting in Mr. Saraceno's Arachnid Research Laboratory, monitoring how the spiders reacted to dust from earth as well as what Mr. Saraceno said was dust that had fallen from outer space. He calls these "cosmic jam sessions."

An in-house expert looks after exotic spiders and the studio maintains the world's only three-dimensional spider web archive.



Solar-powered, heat-activated balloons rise above Salinas Grandes in Argentina last year as part of Mr. Saraceno's "Aerocene" project. Credit...Studio Tomás Saraceno, 2017/Courtesy of Aerocene Foundation 4.0

Downstairs, in the production workshop, assistants were assembling sculptures and designing architectural structures. "Tomás works best in exchange with others," said Martin Heller, who describes his role as "artist's counselor," advising the team on how best to operate the many departments of the studio, whose staff has grown rapidly in the past few years. "He always wants to try new ways of doing things with them."

When he speaks, Mr. Saraceno alternates between the poetic and technical. He coins terms like “Social Spider Intelligence” or “Interspecies Dust Translator.” He seems younger than his 46 years, punctuating his observations with peals of throaty laughter. But then he’ll drop a reference to thinkers like Bruno Latour — a philosopher, sociologist and anthropologist known for his writings on social networks — or launch into a discussion of ripples in time. “His mind is truly free,” said Ms. Lamarche-Vadel, the curator. “He goes from one topic to another, bridging knowledge. It’s absolutely incredible how he can get inspired by a debate, by a single sentence. One signal, like a spider, will activate an incredible network of thoughts, a never-ending process of thinking.”

Dust, spiders, light, networks, space, cities in the sky: Where did his ideas come from? “I wish I knew better how things come to be!” he said.

“But there are two things I remember,” he added. One is a house his grandparents had in Miramar, Argentina — there, at 7 or 8 years old, when he was supposed to be taking a siesta, he watched dust illuminated by a ray of light through parted curtains. A camera obscura of the street appeared through a hole in a curtain, making the world outside appear on the wall, upside down. (One shadowy piece in “On Air” was inspired by this childhood memory).



An “Aerocene” launch at White Sands National Monument in New Mexico, in 2015. Credit...Christ Chavez/Courtesy of Aerocene Foundation

And during another childhood period, in Italy, he lived with his family in a centuries-old house whose attic was filled with spiders. “Were the spiders living in my house, or was I living in the spiders’ house?” asked Mr. Saraceno.

Mr. Saraceno's work is playful, even childlike, yet mind-bogglingly sophisticated and political. It seems utopian — and, [critics have said](#), more science and architecture than art — but it is always anchored in today's pressing issues, such as the environment. “I don't think his work is about utopia, which is an older concept. One could call him a visionary,” said Esther Schipper, a Berlin-based gallerist who represents him.

It also questions humanity's ignorance — and arrogance. It asks: What can we learn from animals, indigenous peoples, the cosmos? “What if we could talk to spiders?” Mr. Saraceno asked. “Does the earth float, or does it fly? Why don't humans trust their instincts more?”

As “On Air,” the artist's biggest show to date, speculates on a loftier future, Mr. Saraceno himself appears to be entering a calmer, more grounded phase. Earlier this year he took up Transcendental Meditation. Not long ago, he entered a South American forest with a shaman, and found himself listening differently to the natural sounds around him. In late October, he'll embark on a walkabout in Australia.

“When you propose art that is inclusive and not exclusive, you propose a new perspective on what art is,” Ms. Lamarche-Vadel said. “Tomás's work is about time, about space, about us, about our history. It's beautiful to have the potentiality of our world completely reshaped by such a mind.”