

MUSEO AERO SOLAR





Museo Aero Solar (2007-present)

is an airborne, lighter-than-air sculpture made only with reused plastic bags. What began from the premise of a collection has revealed itself as an urgent and necessary research on coexistence, aeronautics and architecture, with the aim of rethinking the way we navigate new territories and venture beyond the rules of gravity.

During construction, the general public is invited to appropriate the Museo by drawing, writing stories, generating expressions. Once built, participants can fly the Museo Aero Solar if the conditions of sunshine allow it, as well as inhabit it as an ephemeral architectural space.

Initiated in conversations between Tomás Saraceno and Alberto Pesavento in 2007, Museo Aero Solar unfolds in the space formed between human and non-human participants in the simple acts of cooperation and reusing plastic bags to collectively produce an aerosolar sculpture.

Embodying a vision of pollution-free futures through the growth of self-assembling, geographically dispersed participatory communities, Museo Aero Solar can be seen as marking the beginning of the genealogy of Aerocene.

The Museo elevates with dawn, employing the common aerosolar ethos: the sun warms the membrane, pulling energy to the air inside. As the pressure differential increases between the interior and exterior bodies of air, the sculpture expands further, thus rising without the use of fossil fuels.

Reusing plastic bags is an act that embodies an ethos of care and awareness, transforming waste from the infamous material of our current geological epoch into a mind-expanding matter: rather than being discarded, the reclaimed plastic is washed, dried and cared for, united together as a canvas for the collection of

personal stories and friendships, expressed in drawings made on the plastic membrane. The canvas built is not only about uniting plastic bags, but also uniting human lives. Building a Museo Aero Solar fosters strong human bonds through collaborative efforts, shared vision, and inclusivity.

Participants from diverse backgrounds learn from each other, engaging in problem-solving, communication, and teamwork. A sense of ownership and pride arises as participants see their contributions form a meaningful sculpture, that can be exhibited, inhabited and even flown without using any fossil fuels.

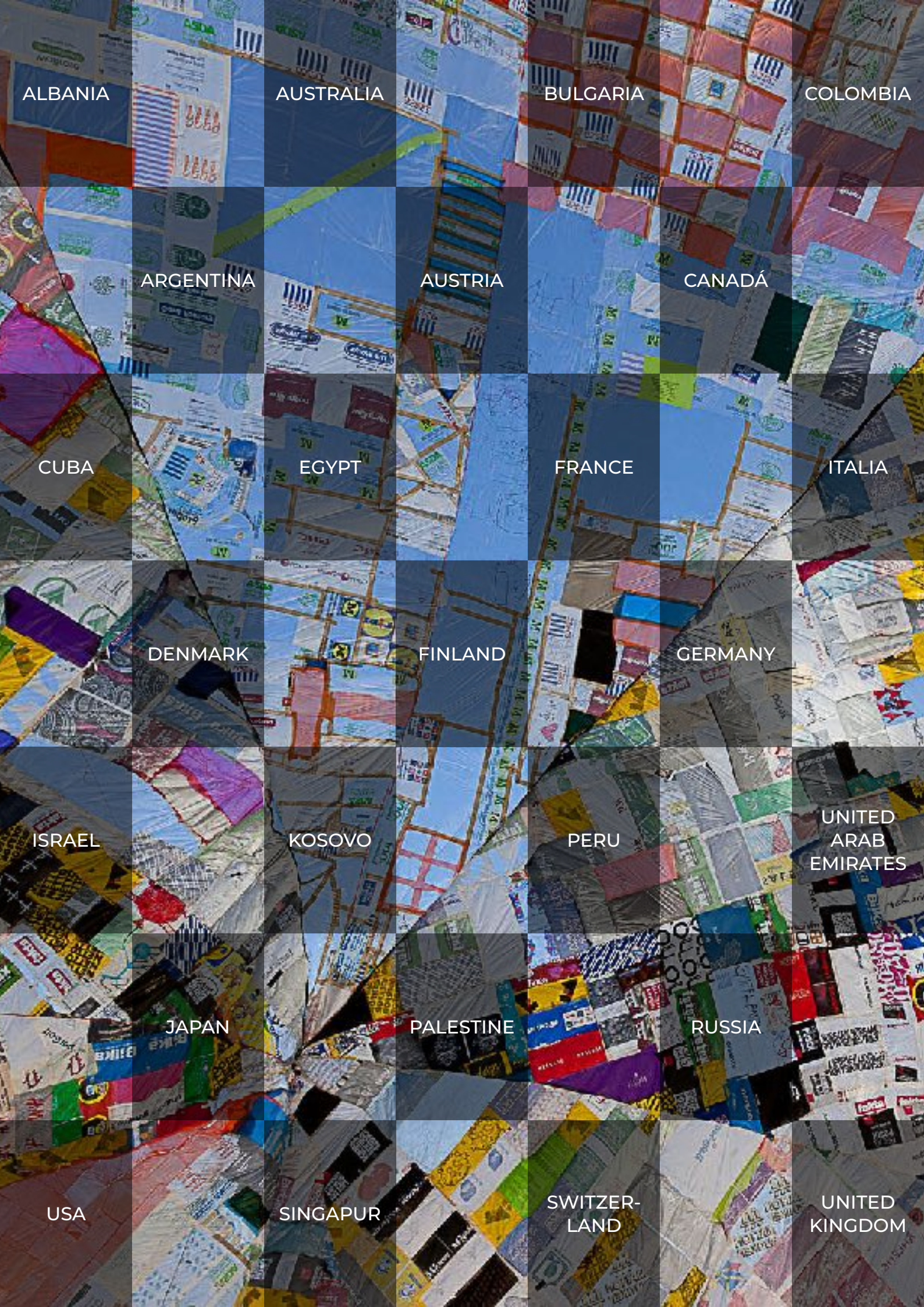
Although strong emotional connections and lasting memories are forged during the Museo Aero Solar construction, the experience transcends the construction process, inspiring further community collaboration and solidarity.





Museo Aero Solar

shows how a collective project can arise from individual acts and, potentially, recover a polluting product and transform it into a material that expands the mind



ALBANIA

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BULGARIA

COLOMBIA

ARGENTINA

AUSTRIA

CANADÁ

CUBA

EGYPT

FRANCE

ITALIA

DENMARK

FINLAND

GERMANY

ISRAEL

KOSOVO

PERU

UNITED
ARAB
EMIRATES

JAPAN

PALESTINE

RUSSIA

USA

SINGAPUR

SWITZER-
LAND

UNITED
KINGDOM

Museo Aero Solar

[Neither] a brand, [nor] a copy-righted artwork [...] neither a flying sculpture, nor a symbol or an aestheticization of some good, politically correct eco-sustainable practice, Museo Aero Solar is firstly a community.

Pierre Chabard, ENS d'Architecture Paris La Villette

In the last **16** years

Museo Aero Solar has already landed at

56 locations in **25** countries
around the world

in **76** Museo Aero Solar projects and activations
dating back to **2007**

So far we have recycled together

over **52500** plastic bags

collected by **427** participants



Do It Together -instead of do it yourself

Museo Aero Solar represents a different conception of space and energy, both anomalous and forceful at the same time.

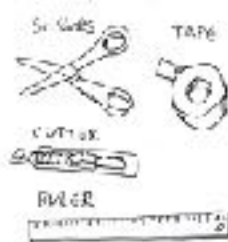
The core of the museum lies in the inventiveness of the local inhabitants, not in their image: between collective action and art, the technology of doing together and the experiment, it is a journey backwards/forwards in time.

Museo Aero Solar is a constantly growing group, which is dedicated to the construction of a solar balloon made of reused plastic bags.

HOW TO

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BUILD



USED PLASTIC BAGS

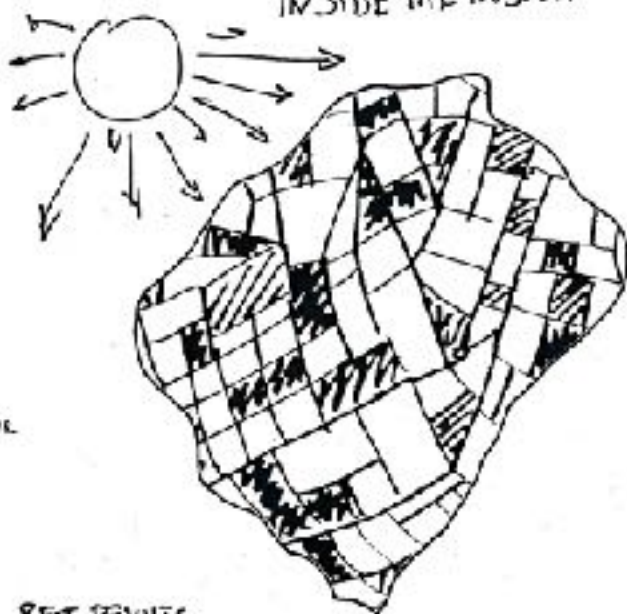


HOW YE DO IT:



IT

THE SUN HEATS COLD AIR INSIDE THE MUSEUM



BEST RESULTS
CLEAN SKY
NO SMOG

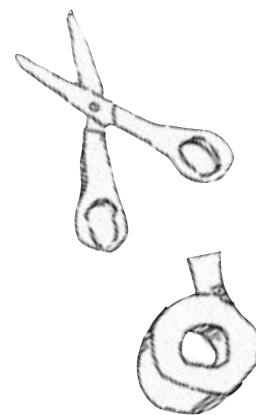


FLOAT IN THE SKY!



Bill of Materials

- lightweight reused plastic bags
- scissors
- rolls of packing tape (3M or similar)
- rulers (50cm long)
- measuring tape (30m and 5m long)
- nylon rope (diameter 5 mm)
- portable home fan with adjustable speed
- electric cord extension (as needed)
- rope
- protective gloves



STEP 1

The first step is to collect used plastic bags from various sources like markets, stores, or donations. Ask around!

You will be surprised by how many people will collaborate. Typical groceries plastic bags, also known as T-shirt bags, measure 30x40cm, and when unfolded, 60x40cm, which equals to 0.24 sq. Mts.

Get your friends and family together and form your plastic bag collection point, or participate by donating bags to a collection point. What you need to set up a collection point for used plastic bags:

- 1 poster with instructions + dates for the workshop.

- 1 container for the collection of plastic bags.

After collecting the plastic bags, they can be sorted by color and cleaned to remove any debris or stickers.

Volunteers and participants then cut the plastic bags into rectangular pieces and join them together using wide transparent packing tape. We highly recommend to choose a packing tape with good adhesive power such as 3M. Don't be afraid to go for the more expensive tape, this is essential for the project's success and well justified.



STEP 2

After assembling your equipment and collecting the used plastic bags, start working on your floating sculpture. In order to organize a workshop you'll need scissors, packing tape and measuring tape to cut and paste used plastic bags onto sheets.

Your objective is reaching a rectangle with proportions 3 to 1 made out of the reused plastic bags. When building it, you can push the limits and actually go as big as your imagination wants! Because of the relationship between the material and solar physics, the bigger you go, the bigger are the chances it will fly only with the sun.

For example, some typical sizes for the Museo Aero Solar 3 to 1 rectangle can be: 6 x 18 Mts, 7 x 21 Mts, 8 x 24 Mts, 9 x 27 Mts, 10 x 30 Mts, 11 x 33 Mts, 12 x 36 Mts... You get the idea!

Building a Museo Aero Solar is often a community-driven project, involving people of all ages and backgrounds. Workshops and events are organized to engage the public in the creative process of intervening the reused plastic patchwork with drawings, thoughts, ideas, wishes and dreams, promoting a sense of ownership and unity and solidarity with each other.



Let's do it!

TOGHETER



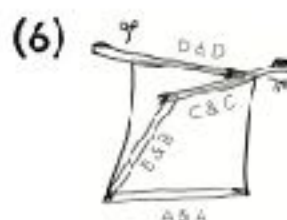
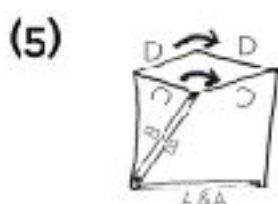
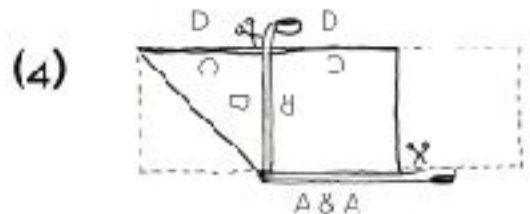
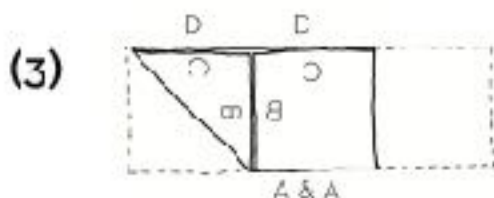
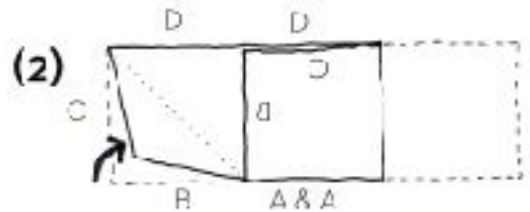
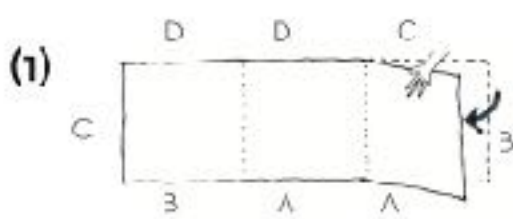
STEP 3

The duration of the construction can vary greatly depending on the amount of community members participating and the final size chosen for the sculpture. To give you a rough idea, it can require a group of 5 persons working part time during 2 or 3 days.

We usually build tetrahedrons, the geometrical shape defined as easiest to build from a flat surface. You will find the instructions to build a tetrahedron in the schematic below. It's actually extremely useful to fold first a small paper model following these instructions. Once you learn how to fold, you can teach this method to other people embarked on the construction.

Finally once folded, you are ready to inhabit the Museo Aero Solar sculpture as an ephemeral architecture, and this makes for a great photography moment! Please be aware that all times, there must be someone supervising both inside and outside of the sculpture to make sure everything goes well. Inside the Museo you can sing, dance, laugh, meditate or just lie in the floor and contemplate quietly. It's your new shared space!

The life of a Museo Aero Solar doesn't end with its initial display. The sculpture is meant to be stored and re-activated elsewhere, or you can choose to expand it in new iterations, keeping the project alive and promoting a continuous cycle of creativity and environmental awareness.



Museo Aero Solar floating

In exteriors, the volume of the sculpture allows it to rise only by using heat from the sun, so you float in the atmosphere if you find a day with the right conditions: zero wind, or as close as possible to that.

This type of flight requires an open space, similar to a circle with a radius of at least 15/20 meters to allow the free movement of the balloon with changing wind conditions.

Make sure the Museo Aero Solar has many tether cords firmly attached to it, so you can tie them to objects in the ground, pegs, or tree branches to keep it safely floating at a low altitude. Never release Museo Aero Solar for free flight.

The fewer trees around, the better! Away from power lines as well. The site should not be obscured by buildings and other constructions during the flight.



Meteorology

Aero Solar flights need clear skies with sunshine. If it is slightly cloudy, the balloon can be inflated, but it will not stay in flight. The ideal flight condition is zero wind. Never attempt to fly Museo Aero Solar with wind speeds exceeding 5km/h.

The weather conditions can be estimated quite accurately up to 5 days before the event. This is why you should keep some flexibility in case the weather conditions lead to changes in the planned activities. We recommend using [windy.com](https://www.windy.com) for weather planning.

