Visualize the change you want to see

How to make a Camera Obscura

Welcome to our tool's tutorial!

Green Artivism Creativity Web Toolkit * 2022

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"This tutorial is meant for those young people who are concerned about climate change, want to take action, and express themselves in a creative and artistic manner"

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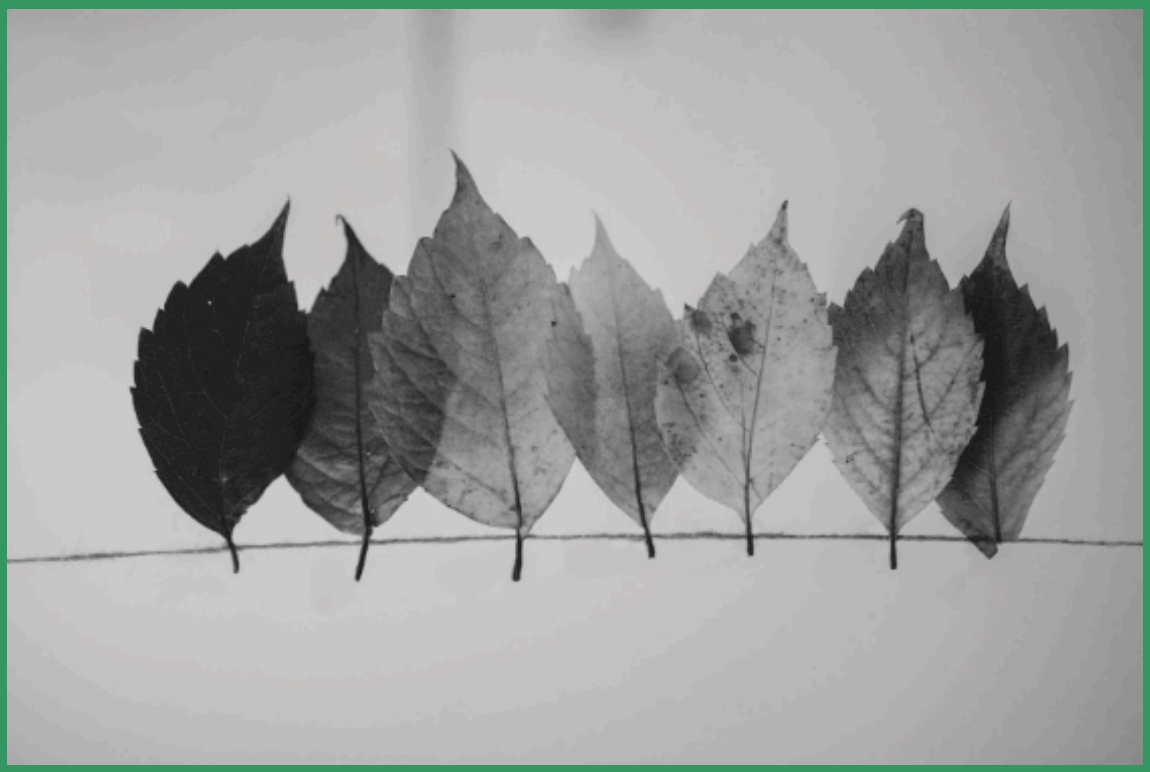
How to make a Camera Obscura



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How to make a Camera Obscura

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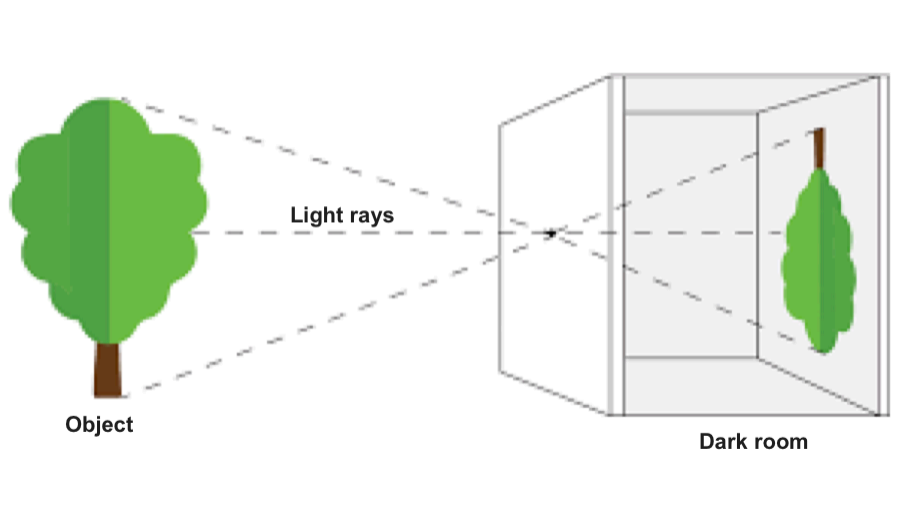
How to make a Camera Obscura

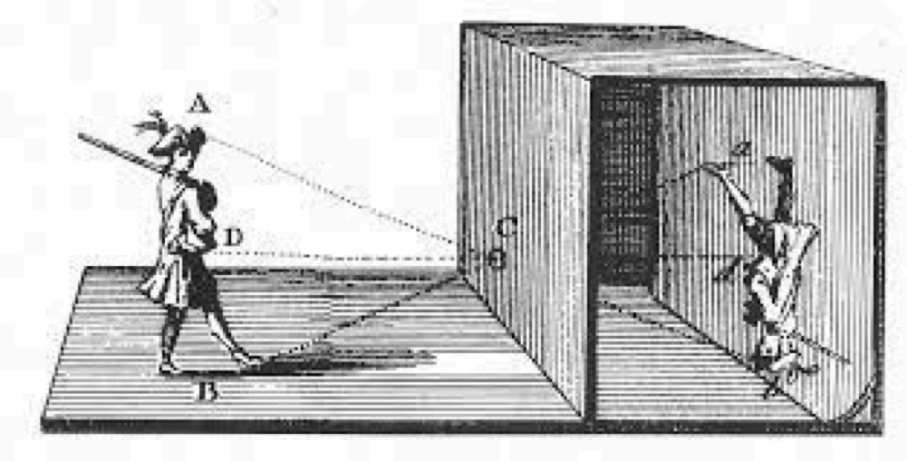
Let’s go for a short introduction

A camera obscura is a darkened room with a small hole or lens at one side through which an image is projected onto the wall opposite the hole.

The light reflects over an object and it carries out its colour and brightness. It has like a memory …



The image reflected is inverted from top to bottom and from left to right.



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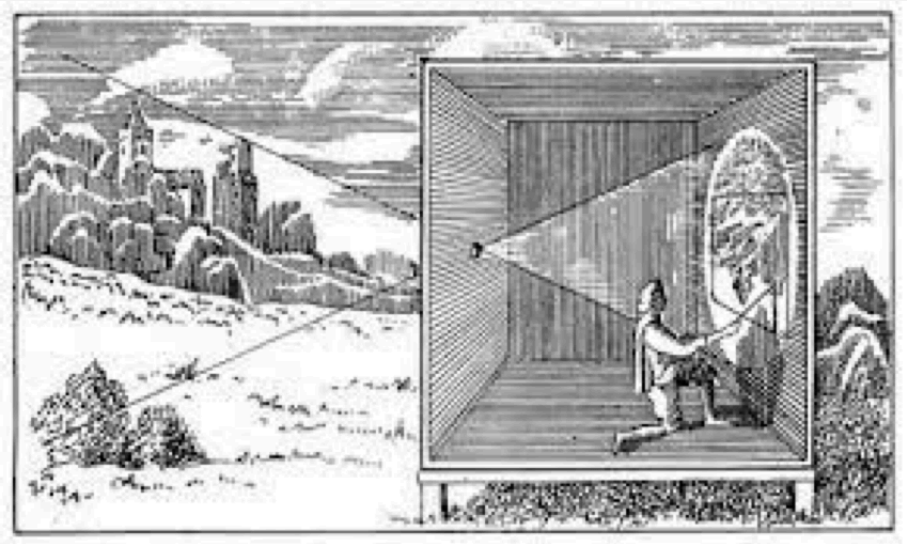
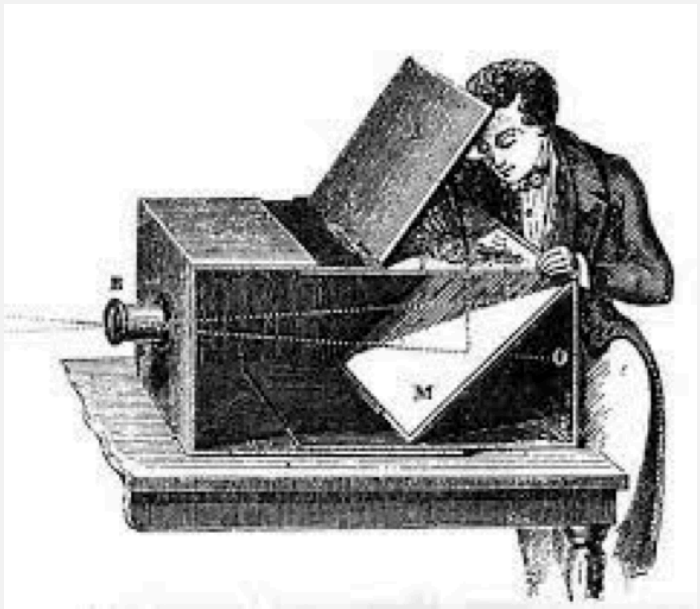
How is this useful for painting

Camera obscuras with a lens in the opening have been used since the second half of the 16th century and became popular as aids for drawing and painting.



Adding a mirror at 45° was an improvement.



As a drawing aid, it allowed tracing the projected image to produce a highly accurate representation, and was especially appreciated as an easy way to achieve proper graphical perspective.

Some people say that Caravaggio might have used this tool.

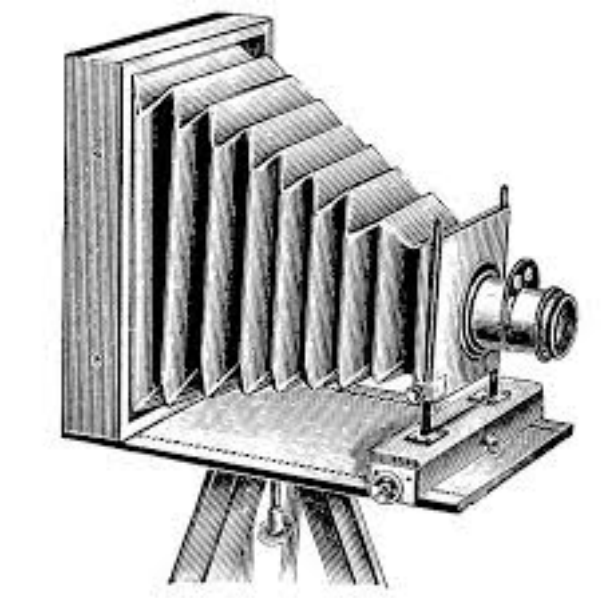
Nella Cena di Emmaus (1602) Caravaggio

It is believed that some dutch masters such as Johannes Vermeer might have also used this tool.

Girl with a Pearl Earring (1632-1675) Vermeer

How is a camera obscura a photographic camera

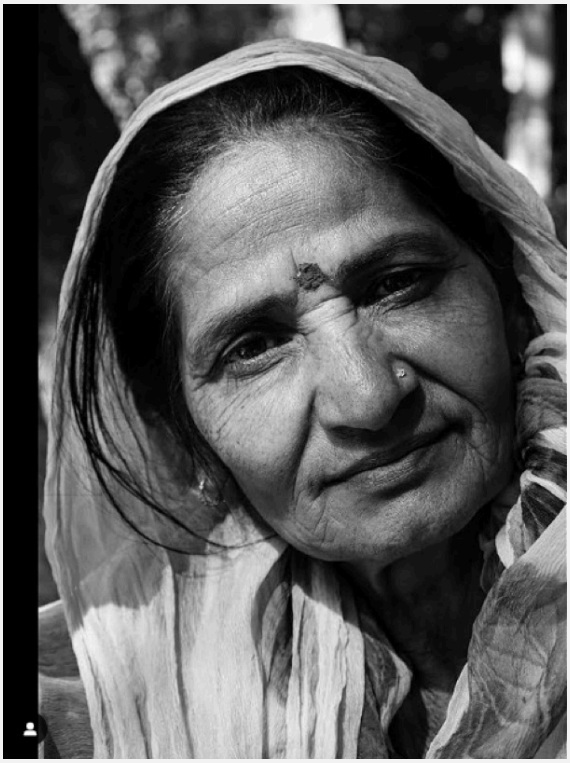
The concept was developed further into the photographic camera in the first half of the 19th century, when camera obscura boxes were used to expose light-sensitive materials to the projected image.



And just for you to know, a camera obscura without a lens but with a very small hole is sometimes referred to as a pinhole camera.

Nowadays some artists like to use these cameras to present their work. For example, Harvey Mills uses pinhole photography as a way to slow things down, revel in uncertainty, and rediscover the fundamentals. His photographs celebrate everything wonderful about the process, and in turn, everything wonderful about photography. He creates a world we want to enter to find some peace, some silence, and a great deal of beauty. https://www.instagram.com/pinhole_photographs/

Camera obscura is also liked to be used for portraits, allowing to obtain good quality, very realistic images in big formats. Even life-size portraits when using a room as a camera obscura.



https://www.instagram.com/pinholephotosoc/

What do we go for

We will use the Camera Obscura as a photographic camera, but avoiding the use of chemicals and a lab. We will learn how to build our own camera. We will go for enjoying the process of finding our vision and learning what we want to share. Finally, we will use our cell phones to do that.

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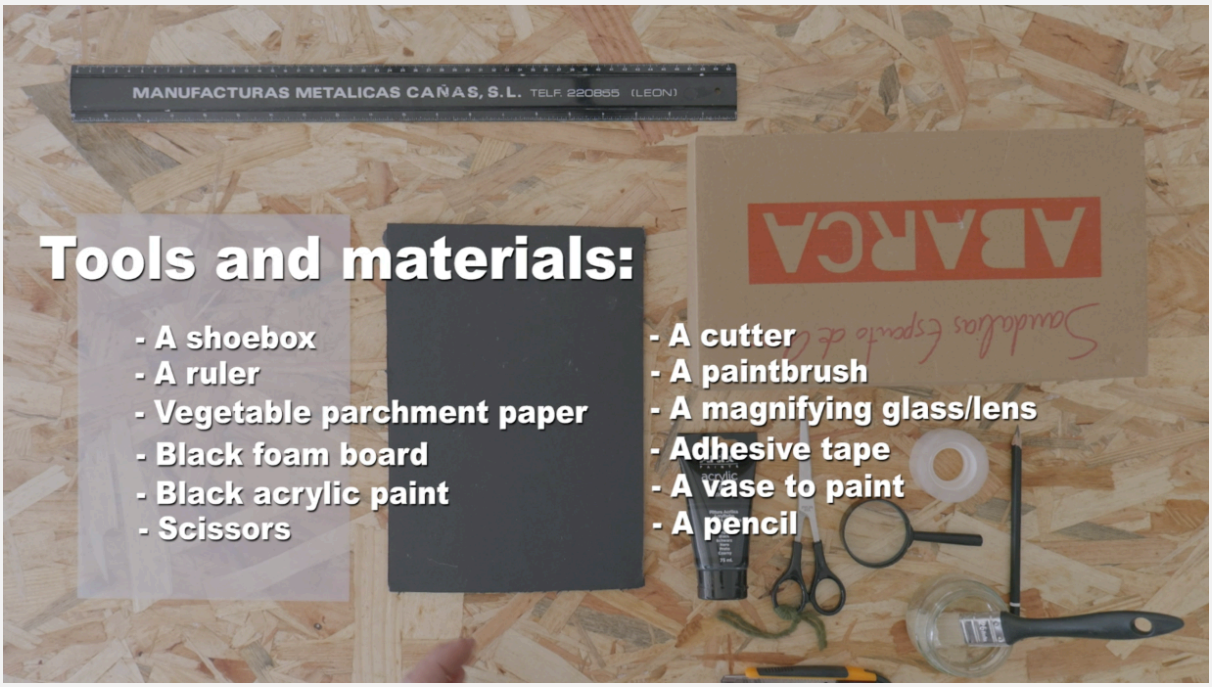
How to make our own camera obscura

This tutorial is also available in video format on GreenArtivism website.

Tools and material



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Step 1

We apply the black acrylic paint inside the box so it does not reflect the light.

Do not forget the box lid!

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Step 2

With the help of the ruler, we draw an “X” in the central point of one of the short sides of the box.

This is where the magnifying glass/lens will be placed.

We use the magnifying glass/lens itself to draw the outline.

and cut the hole with the help of our cutter.

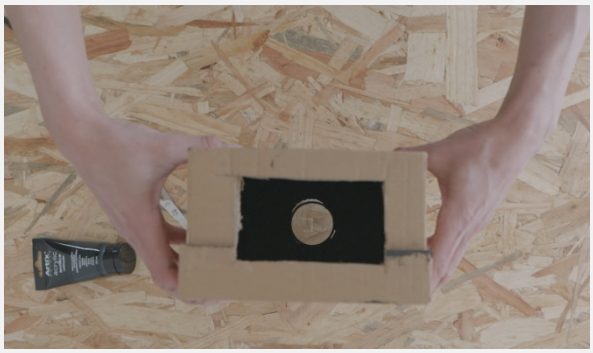
Now, we fix the magnifying glass/lens onto the hole with the help of adhesive tape.

If we use a more opaque tape, it will help us to prevent light leaks.

Then we make the viewfinder of our camera obscura. With the help of the ruler, we draw a rectangle, leaving around 2 cm space from the edges.

And we cut the viewfinder hole using the cutter.

If part of the lid covers our lens or the viewfinder of our camera obscura, we use the cutter to remove the cardboard excess.



Step 3

The focusing screen is made from foam board. We cut a rectangle of the same length and width as the box.

We now take the rectangle and cut a 1 cm wide frame. This frame will provide support to the vegetable parchment paper.

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We cut a piece of vegetable parchment paper of the same size as the foam board frame.

Then we use the adhesive tape to paste it onto the frame.

And we put the frame into the box. We will focus our targeted object by moving the screen from and towards the lens.

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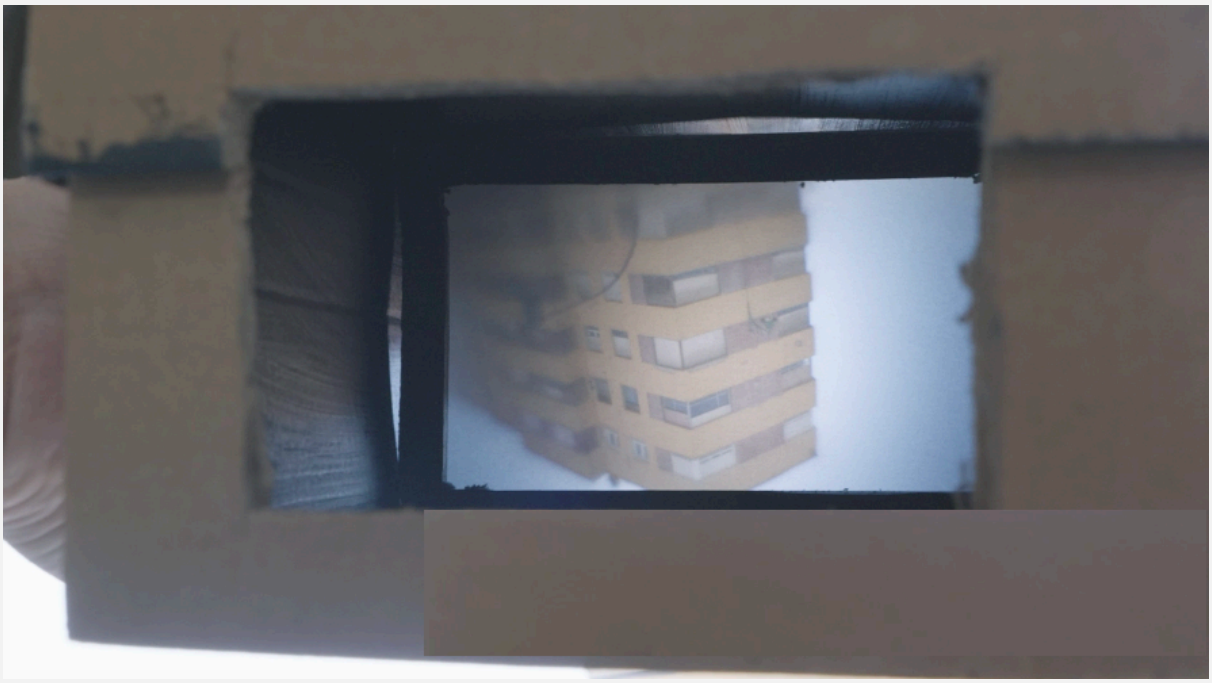
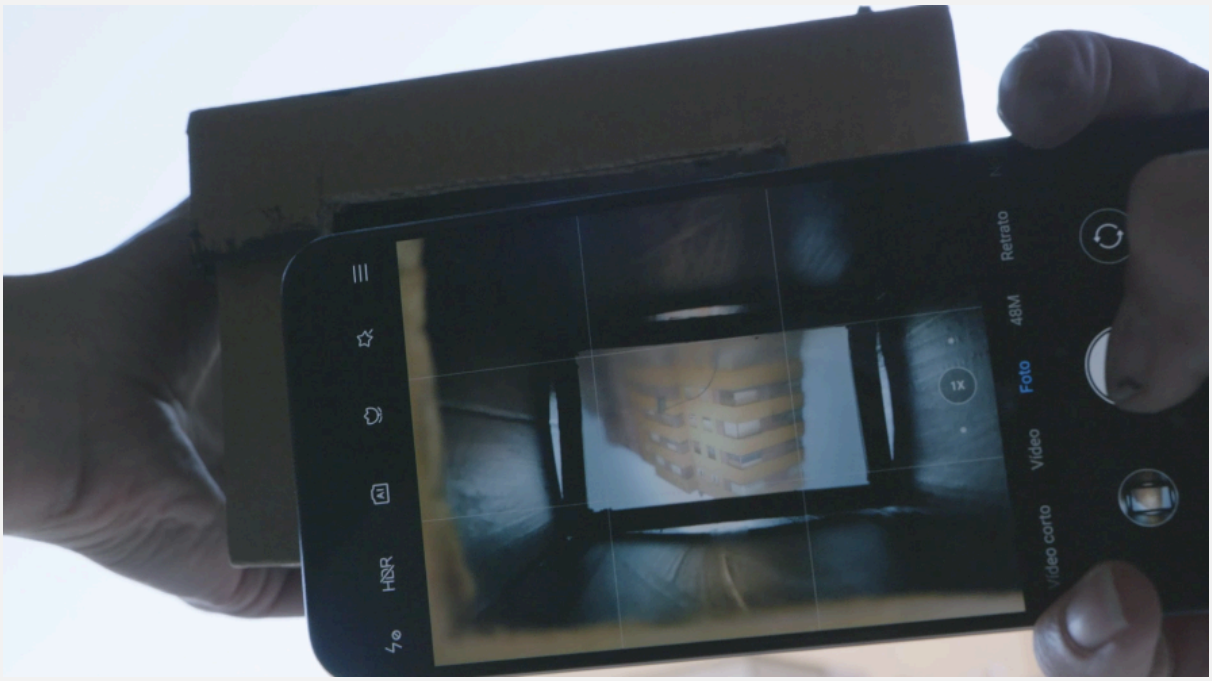
Focusing.

We will see the image inverted from top to bottom and from left to right since the camera does not have a mirror system to rotate it.



That's it, we already have our camera obscura ready to be able to explore and share the environment that surrounds us!



Congratulations! You have reached the **end of this tutorial.**

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