Mercado Roma

Rojkind architects

Institute for advanced architecture of Catalonia

STUDENT: Michel L´Eglise Quintana

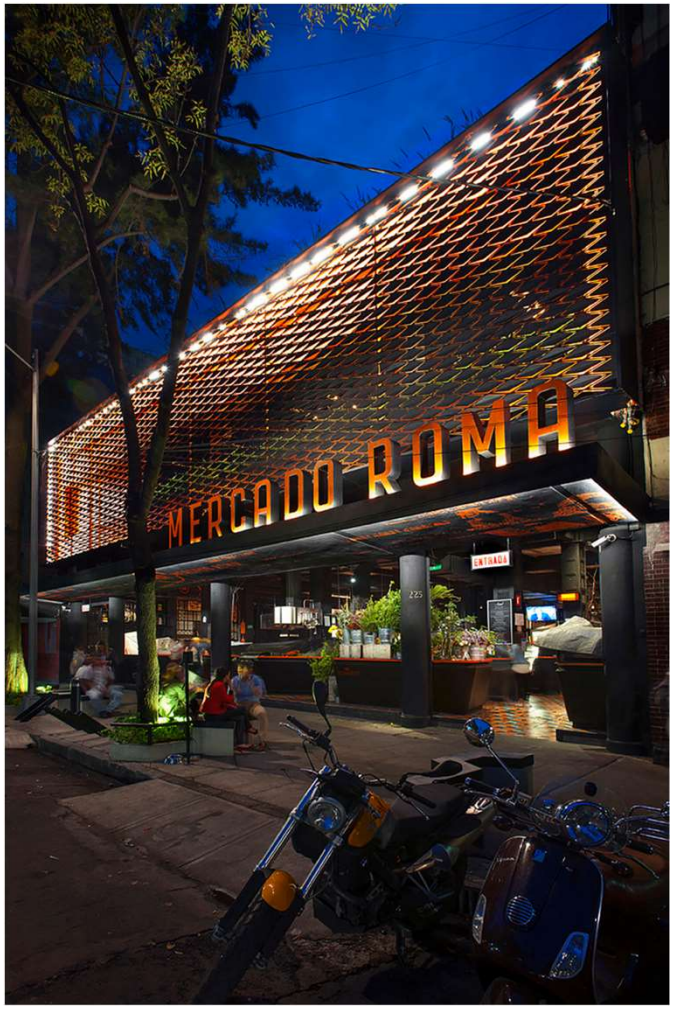
Mercado Roma

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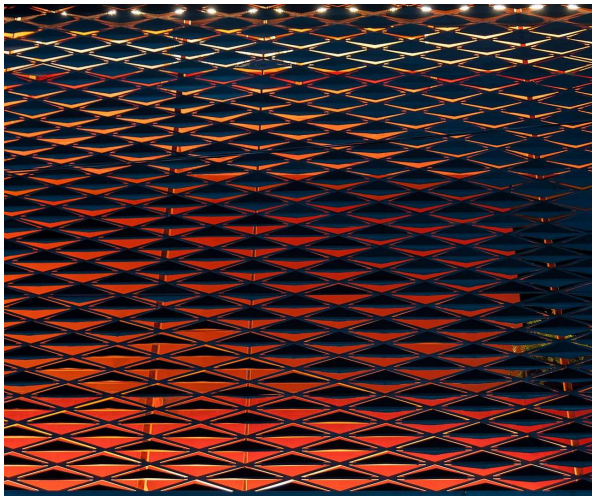
This market was created to be a gastronomical contemporary Mexican culture, making a relation between community and collaboration.

Mercado Roma reuse a industrial space that was occupied by a bar named Bar León located in the Colonia Roma neighbourhood.

The building has a market in the first floor and the two superior levels are restaurants and a terrace.





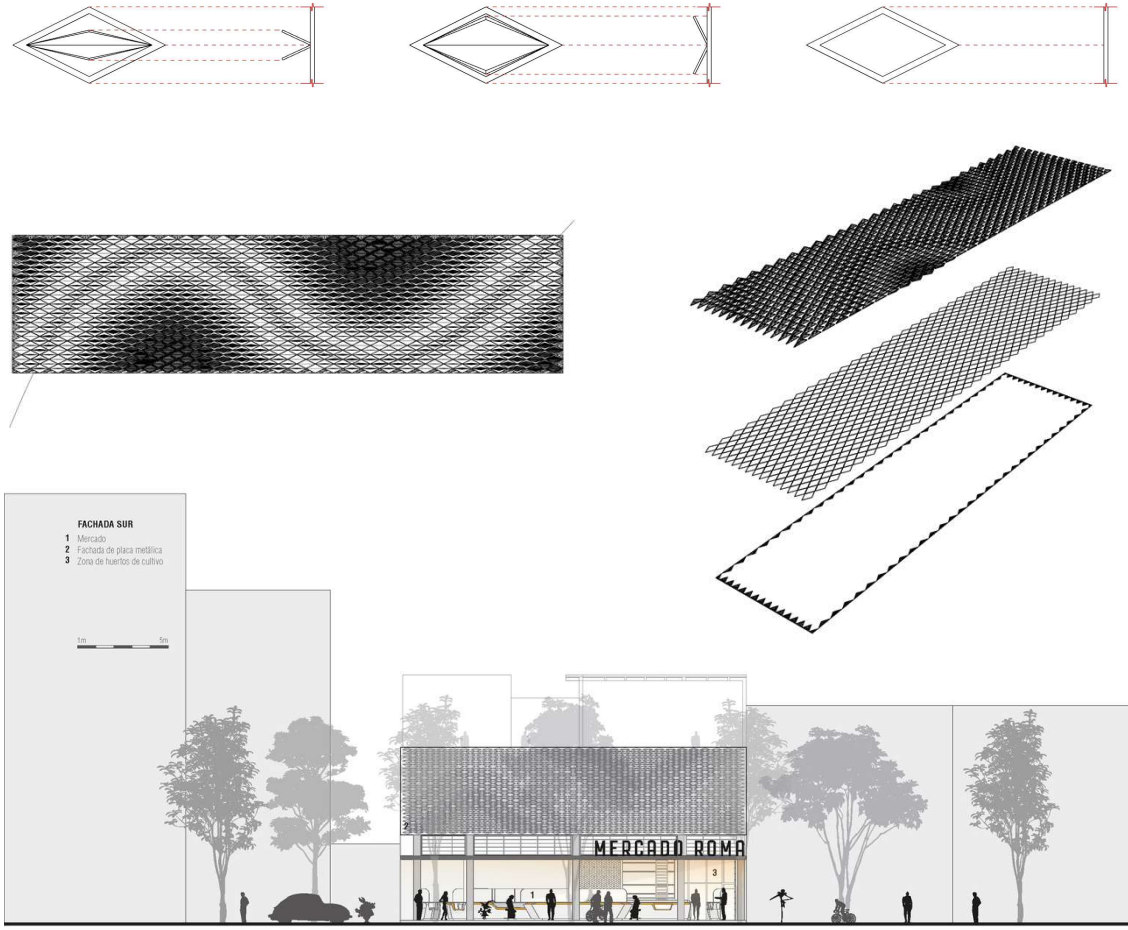


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The main criteria of this design and the proposal of the exercise is based on a pattern in which a grid of panels change their angles attracted to a curve.

- All the panels have the same size.
- Connected to a symmetrical grid.
- The panels nearest to the curve are the ones that are more bent.
- Each panel size is 60 x 30 cm.



Pseudo Code

Lattice

Area

Define the exact dimensions

Surface

Create the lattice surface

Latice geometry

Create the lattice geometry

Diamond grid

Map base to surface

Attractor curve

Map base to surface

Division of panels

Divide each panel in to pieces

Rotation

Each panel rotate in the Z axis with a variation of oppenings based in the atractor curve

Parametric facade

Construct parametric lattice

TUTORS: RODRIGO AGUIRRE, MOHAMAD ELATAB

ASSISTANT: IVAN MARCHUK, OANA TAUT

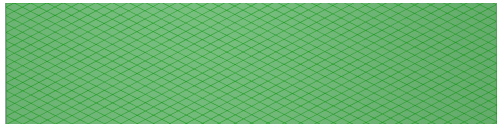
MERCADO ROMA

STUDENT: MICHEL L´EGLISE QUINTANA

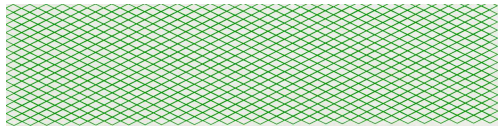
Code Development



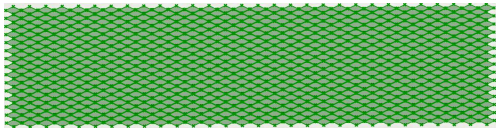
1- Create the surface



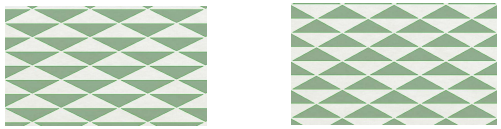
2- Divide the Surface with the diamond panel command



3- Extrude the grid



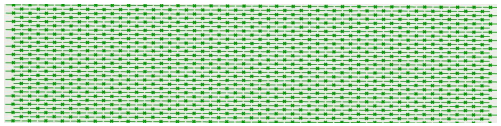
4- Deconstruct panels with the deconstruct brep command



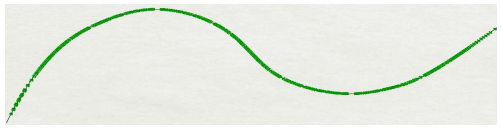
5- Select 3 points of each panel by connecting the vértices of the deconstructed brep, to a list ítem command and create two different surfaces with the 4 point surface command



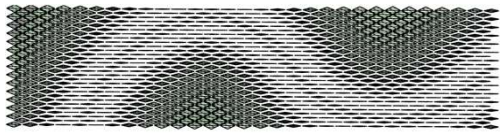
6- Create a line in each panel that goes in the largest size of the diamond panels with the line command



7- Evaluate the curves to substract the middle point of the lines



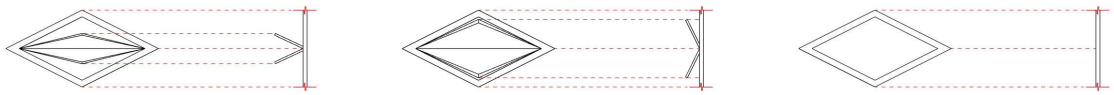
8- Pull the points to the curve with the pull point command

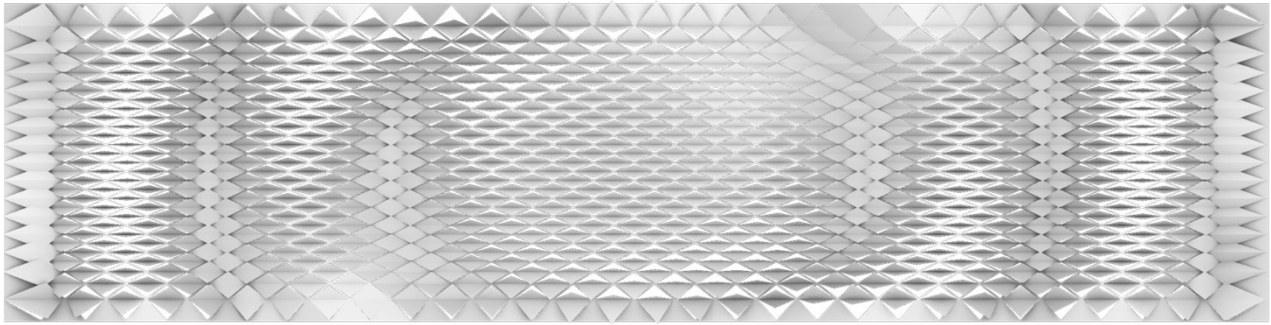


9- To make the rotation of the panels remap the distance of the pull point command and connect the mapped values to pi for one of the surface panel and for the second the second surface add a negative command

Facade main element

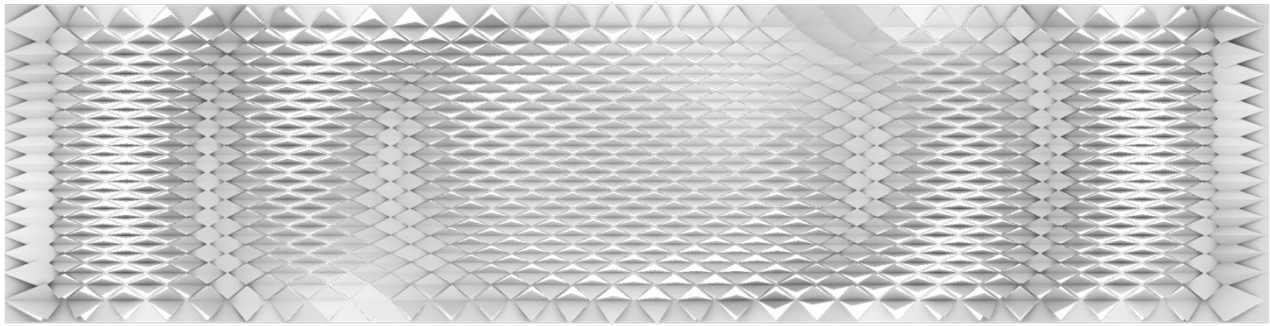
The main element for this design is the rotation in each diamond panel that have the objective to make the view from the outside of the building diffused, the way to chnge this element is by grow or decrease the domain of the distance between the Points of each panel and the geometry curve.



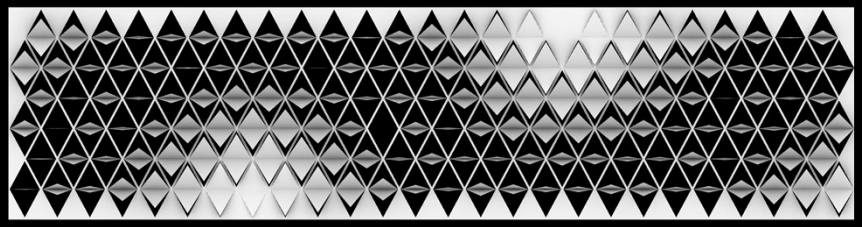


Facade array

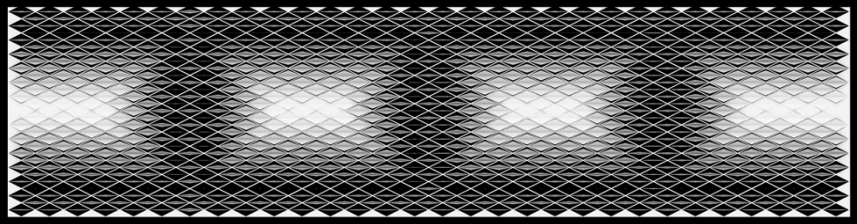
The facade array technic was a diamond panel command and the way to deformed was by changing the sizes and the rotation of each panel also by doing a different attraction curve, also making the surface to have a wavy appearance.



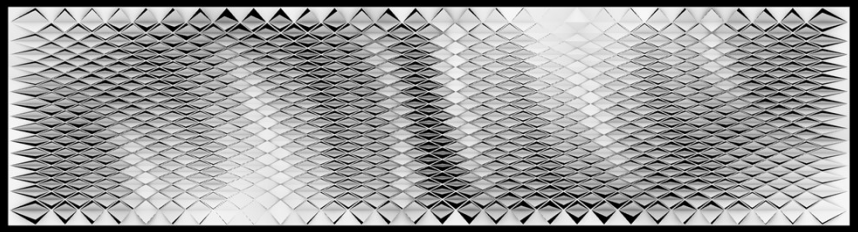
Facade iterations



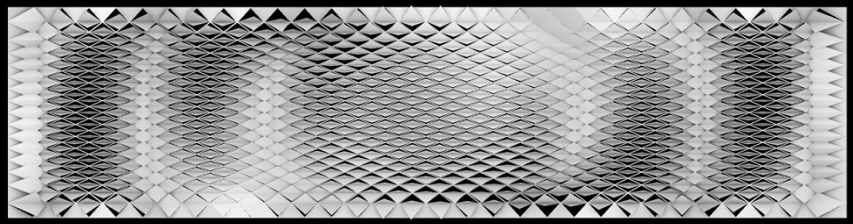
Change of the size and shape in the diamond panels



New attraction curves



Wave pattern with the origin in the corners



Wave pattern with the origin in the center



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