

# BRICKS OF INDEPENDENCE

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HISTORY OF CATALAN INDEPENDENCE MEMORIAL PARK

CHALMERS SCHOOL OF ARCHITECTURE  
MASTER THESIS  
SPRING 18'

SOFIE JÖNSSON

DEPARTMENT: ARCHITECTURE & CIVIL ENGINEERING  
MASTER THESIS PROGRAM: MATTER SPACE STRUCTURE  
EXAMINER: MORTEN LUND  
SUPERVISOR: PETER CHRISTENSSON

BRICKS OF INDEPENDENCE  
History of Catalan Independence Memorial Park

Sofie Jönsson

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Contact: [jennysofie@gmail.com](mailto:jennysofie@gmail.com)

Master's Thesis in Architecture  
Chalmers School of Architecture  
Examiner: Morten Lund  
Supervisor: Peter Christensson

Gothenburg, 2018.

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**CHALMERS**  
UNIVERSITY OF TECHNOLOGY

*Is it possible to charge a brick with an entire culture?*

Architecture is inevitable for all of us. Being the streets we walk, the roof that gives us shelter and the bench we use for rest, architecture is a part of our cultural and historical heritage that have shaped us into the people that we are. The emotions, through which we perceive architecture, are colored by our past which varies from country to country, from region to region, from city to city. These emotions brings us together but can also separate us.

The fall of 2017 was a historically important period for the the region of Catalonia due to the political situation. A referendum took place October 1st and the independence movement was stronger than in many years. It's more than just a question about political controversies, cultural heritage and a past of suppression. It's about people, it's about emotions, it's about the streets they walk, the roof that gives shelter and the bench used for rest.

A History of Catalan Independence memorial park serves the purpose of highlighting the history as well as cultural heritage of Catalonia. The site chosen for this is Parc de Barceloneta, a deactivated park in the middle of a busy beach area that has been taken over by tourists. Creating a monumental park in honor of the history of the independence movement by celebrating catalan culture is a way to bring back the area to the Catalans.

To approach the culture of Catalonia this research focus on the Catalan brick due to it's different dimensions compared to the Castilian type. These components reveals further cultural treasures beneficial for the creation of the memorial park. Alongside exploring old catalan construction methods in a new and challenging way, catalan arts and craft are used as a key to investigate form finding. This will be a way to raise the question of old, brilliant brick techniques that we no longer use.

Result of this research lies in both the design as well as the understanding of catalan culture and brick work. It's the combination of using old building techniques on a platform based on art and tradition on a site of historical importance to create a brick park usable in a manner that reflect both the catalan lifestyle and mindset.

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## INTRODUCTION

# DISCOURSE

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## HISTORY OF CATALAN INDEPENDENCE MEMORIAL PARK

*Is it possible to change a brick with an entire culture?*

Architecture is inevitable for all of us. Being the streets we walk, the roof that gives us shelter and the bench we use for rest, architecture is a part of our cultural and historical heritage that have shaped us into the people that we are. The emotions, through which we perceive architecture, are colored by our past which varies from country to country, from region to region, from city to city. These emotions brings us together but can also separate us.

The fall of 2017 was a historically important period for the the region of Catalonia due to the political situation. A referendum took place October 1st and the independence movement was stronger than in many years. It's more than just a question about political controversies, cultural heritage and a past of suppression. It's about people, it's about emotions, it's about the streets they walk, the roof that gives shelter and the bench used for rest.

Touching this subject raises questions about the architects role in a world of politics. Regarding one's rights, obligations and possibilities while working with a politically charged project, as well as personal repercussions. Especially concerning a culture other than one's own.

*What are the personal and professional dilemmas and repercussions of working as an architect in a politically charged environment?*

*How to, in a righteous way, apprehend and temporarily become a part of an other culture?*

# BACKGROUND

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## REASON AND BACKSTORY OF THE DISCOURSE

### FALL 17'

During my exchange semester at ETSAV (Escola Tècnica Superior d'Arquitectura) in Barcelona I got caught up in the political situation of fall 2017. Not only did it affect my living situation but my studies as well. Many of the teachers and students were politically active and since the school is small the whole independence movement became a big part of my exchange year.

The referendum, strikes, demonstrations, manifestations, lectures, violence, convert, the list goes on for the political situation that appeared. Experiencing this without having enough knowledge to fully understand it made me start asking people, doing research and following the news, realizing that this has to do with much more than people being for and against independence of Catalonia.

This battle goes back to even before the regime of Franco and includes cultural heritage and differences. It's about language and mentality but also art and architecture.

I saw this as an opportunity to embrace this situation I was put in. Including this in my Thesis could be a way for me to get a deeper understanding of the situation but also be able to explain it to others - through architecture.





# BACKGROUND

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## AIM & SITE OF THE PROJECT

### AIM

A history of catalan independence memorial park should serve the purpose of letting the visitor understand or remember the history as well as cultural heritage. This together with the people is what defines Catalonia. A building that represent and honor the effort of hundred thousands of people thought the years. While in the meantime, personally speaking, be a way for myself to process the experience of living in Barcelona during this historical fall with all that it includes. But apart from that, the purpose is also to explain the political situation in a fair and understandable way, which is something that media have failed to do due to as well economical interest as corruption.

### SITE

The site chosen for the research is the Park of Barceloneta, or in catalan: Parc de la Barceloneta. That, despite it's fortunate location by the beach, is a rarely used site. A dark and ambiguous space that many people try to avoid. In addition to that, the tourist invasion of Barcelona has lead to the tourist taking over Barceloneta leaving it a ghost town off season. This memorial park is in that sense a way of bringing back Catalonia and it's cultural heritage to the area of Barceloneta.

*"As an architect you design for the present, with an awareness of the past for a future which is essentially unknown"*

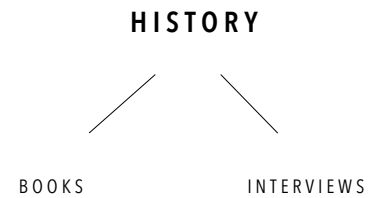
- Norman Foster

# METHODOLOGY

## HISTORY, BRICKS & EMOTIONS

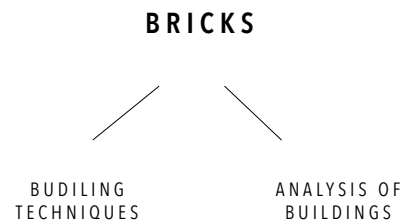
### HISTORY

The research begins with gaining knowledge of and understand the history of Catalonia. What has happened? What is the situation now? What is yet to come? Through different books and articles showing both sides of the story to get a broader and fairer understanding of the situation. In addition to that, doing interviews with people on site in Catalonia, which is a way to get a range of subjective opinions of the story including emotions and experiences.



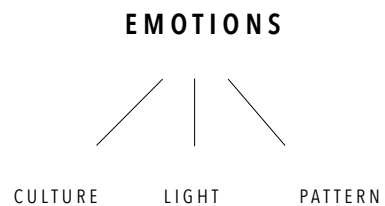
### BRICKS

A part of the Catalonian architectural history is their method of brick constructions. Through studies of the techniques as well as visiting and analyzing existing brick buildings in Catalonia, their architectural heritage will be better understood. To later be applied in a suitable and respectful way in the creating of the memorial park.



### EMOTIONS

All of the key points in the research circles back to emotions. To be able to portray the historical event in a architectural way the emotional experience is key. By using the full potential of brick, these emotions can be recreated through the play of culture, light and pattern.



# PREVIOUS RESEARCH

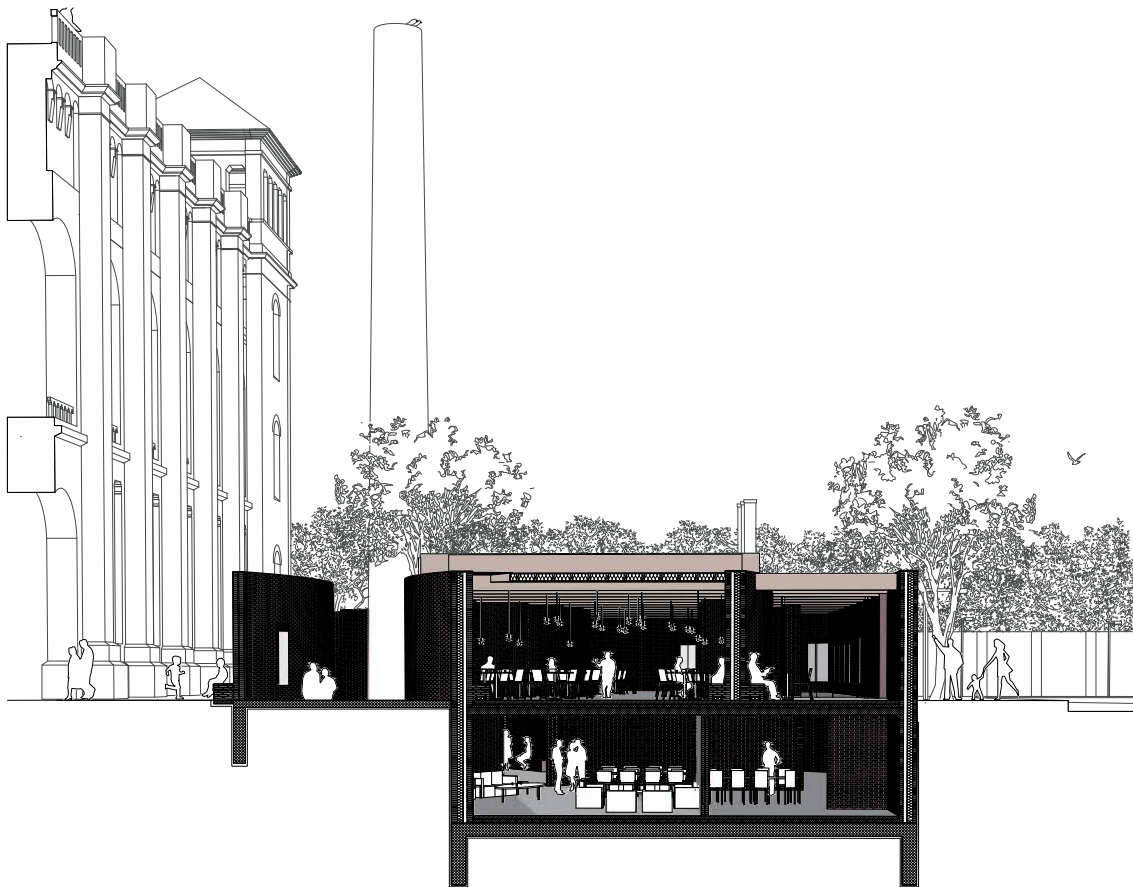
## ETSAV: RESTAURANT IN BRICK BY PARC DE CIUTADELLA

### BRICKS

During my exchange semester at ETSAV I was working in the studio 7A, where the focus was brick. The task was to design a restaurant by the UPF Library, an old brick water reservoir, by Parc Ciutadella in Barcelona. A group project where I got the chance to work with one student from the University of Illinois and one student from École polytechnique fédérale de Lausanne.

### MOST OUT OF THE LEAST

Our project Making the Most out of the Least, focused on the possibilities and capacity of brick. By working with thin curved walls we created a structural system with the walls while in the meantime creating a variety of spaces. The focus was on the brick itself as well as the experience of the visitor, therefore the studies of this studio will be useful for this thesis project. We also made brick play the main role to solve structural, technical and circulation problems of the project. In addition the site Parc Ciutadella makes it relevant since the memorial park is located in Parc de Barceloneta.



## REFERENCES

# MAIN REFERENCES

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## TWO MAIN REFERENCES, ONE BUILT AND ONE WRITTEN

### HOLOCAUST MEMORIAL - PETER EISENMAN

In Berlin, by the road Ebenstrasse and close to Brandenburger Tor, the Memorial to the Murdered Jews of Europe (Holocaust Memorial) was in 2004 constructed.

The architect Peter Eisenman together with the engineers from Buro Happold designed this enormous concrete park with grid arranged blocks with on a sloping field.

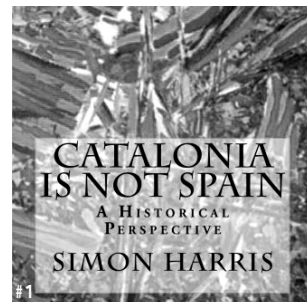
The aim with this memorial park was to create a uneasy, confusing atmosphere with lost touch of the human scale. The graveyard like area plays with light, scale and pattern in a way that affects the visitors state of mind. Where angles and the perspective of the eye makes it difficult to anticipate the feel of the space around the corner.



### CATALONIA IS NOT SPAIN - SIMON HARRIS

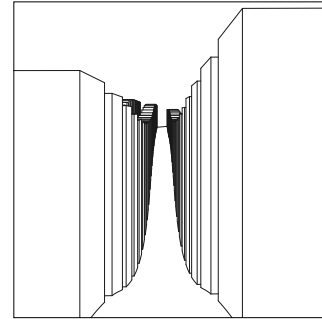
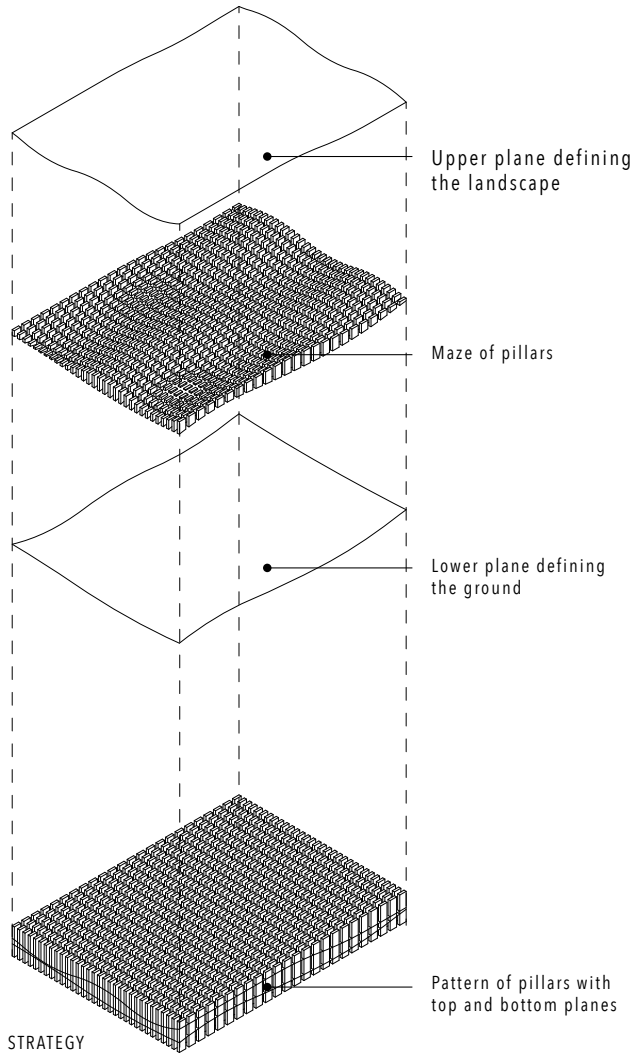
"How much does the world know about Catalonia and its role as a great medieval empire and one of Europe's first nation states? In Catalonia Is Not Spain: A Historical Perspective author Simon Harris takes the reader through 1,000 years of Catalan history focusing on the Principality's often difficult relationship with Castile-dominated Spain. This insightful and balanced history gives an insider's background to the current political situation and why Catalonia is currently deciding whether or not it wants to be independent from Spain."

Simon Harris is a British author and Catalan historian and has written two book about the subject. He has lived in Barcelona since 1988 and began his research in the early 90s.

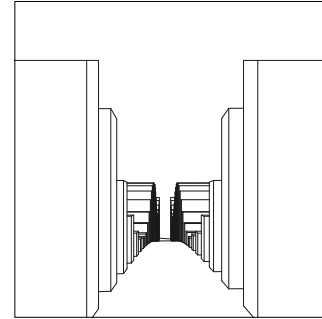


# MAIN REFERENCES

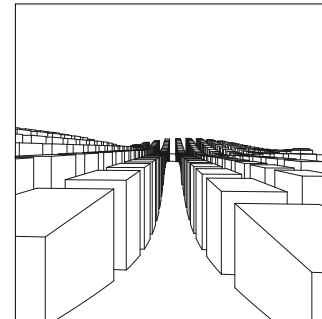
## HOLOCAUST MEMORIAL - PETER EISENMAN



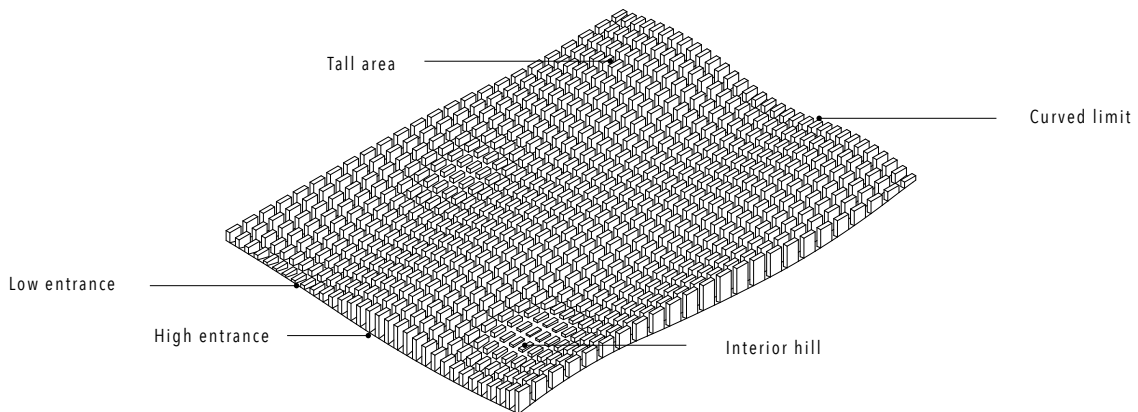
VIEW 1 - Uphill ground



VIEW 2 - Curved landscape



VIEW 2 - Low landscape



# MAIN REFERENCES

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CATALONIA IS NOT SPAIN: A HISTORICAL PERSPECTIVE - SIMON HARRIS

## BACKGROUND

The author Simon Harris moved to Barcelona in the 80's working as a tour guide. He fell in love and fell in love in the city. And it was through his mother in law of his first marriage that he got introduced to the, by the time quite concealed, history of Catalonia. Today he considers himself "an adopted Catalan", as the first chapter of the book states, and feels Catalan.

## ABSTRACT

"Catalonia is not Spain: a Historical perspective" covers the history Catalonia as well as explaining how these events have led up to the independence movement of today. It also includes uncertainties and controversies between the Castilian and Catalan version of what happened in the past with the aim of explaining the tension between the two sides.

## PARALLELS

Throughout the book several parallels are drawn to the historical situation between England and Scotland. Which as for a Swedish architecture student a more relatable reference would be the Sami.

## AFTER THE BOOK

Much has happened since 2014, when the book was published, but in advantage making it more relevant. This will be followed up with an interview with Harris where topics not included in the book will also be discussed.

## MY REFLECTION

The reason for choosing this book as a main reference is that it's written from a perspective of a foreigner looking into the situation of Catalan history and politics. Trying to understand, trying to be involved and a part of it. Watching with the eyes of his own culture that works as a scale in the hopes of understanding. That is the same type of starting point for this research.

Despite the book being a good source, in terms of understanding as well as it being quite condensed, it's important to have in mind that it's a subjective view of the story. Which is being indicated by his use of adjectives.

# CATALAN BRICKS

## PART I: HISTORICAL BUILDINGS IN BARCELONA

### DEPOSIT DE LES AIGUES - carrer de llull



#### HISTORY

Old water reservoir now UPF Library. Made by Antoni Gaudí and Cornet de Reus.



#### BRICKS

Catalonian brick both interior and exterior, with a variety of bonds.



#### CONSTRUCTION

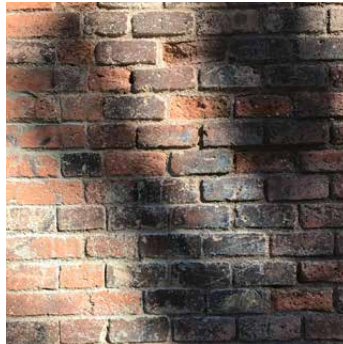
Arches in two directions support the large spans of the buildings. Skylight in form of a cross

### CASTELL DELS TRES DRAGONS - passeig de picasso



#### HISTORY

Modernist building from 1887-8 by Lluís Domènech i Montaner for Universal Exposition of Barcelona.



#### BRICKS

Catalonian bricks except for the front side [image above] which is by bricks of Spanish brick dimensions.



#### CONSTRUCTION

Bricks flipped to hold the heavy load from installations such as windows.

### CASA DE LES PUNXES - avenida diagonal



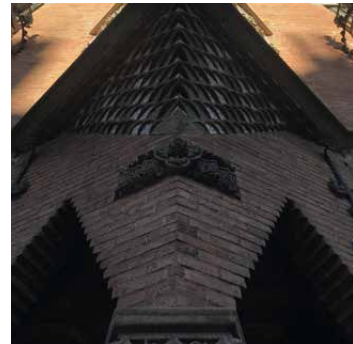
#### HISTORY

Art Nouveau Modernism by Josep Puig i Caladafalch from 1905 for the Terradas Brutau family.



#### BRICKS

Catalonian brick with shifted bond and every other brick flipped.



#### CONSTRUCTION

Openings through pointy arches using rotation of the brick and range of mortar amount.



# CATALAN BRICKS

## PART II: HISTORICAL BUILDINGS IN BARCELONA WITH NEW EXTENSIONS

### PLAZA DE TOROS MONUMENTAL - gran via de les corts catalanes



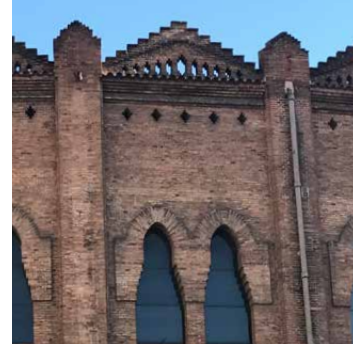
#### HISTORY

Bullring now used for events. Noucentista by Manuel Joaquim Raspall i Mayol, expansion by Ignasi Mas i Morell.



#### BRICKS

Spanish brick with a variety of bond types. Elements of white and blue tiles [not shown in picture above].



#### CONSTRUCTION

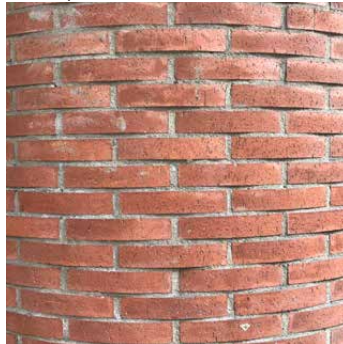
Working with shifted bricks to create openings [top part of image].

### PALAU DE LA MÚSICA CATALANA - carrer de palau de la musica



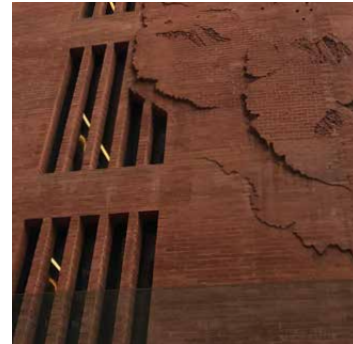
#### HISTORY

Modernist concert hall by Lluís Domènech i Montaner 1905-8. Extension Petit Palau 1989 by Oscar Tusquets.



#### BRICKS

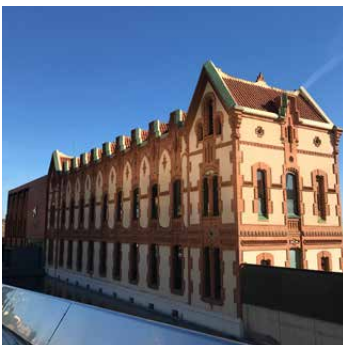
Catalonian bricks with shifted bond. Angled creating a arched shape.



#### CONSTRUCTION

Stacked to create pillars [window in image]. Change of depth to create a pattern [decoration in image].

### COSMOCAIXA - carrer d'isaac newton



#### HISTORY

Former asylum for the blind by Josep Domènech i Estapà from 1904-1909 with an expansion from 2004.



#### BRICKS

Meeting of new and old Catalan bricks with different type of bond.



#### CONSTRUCTION

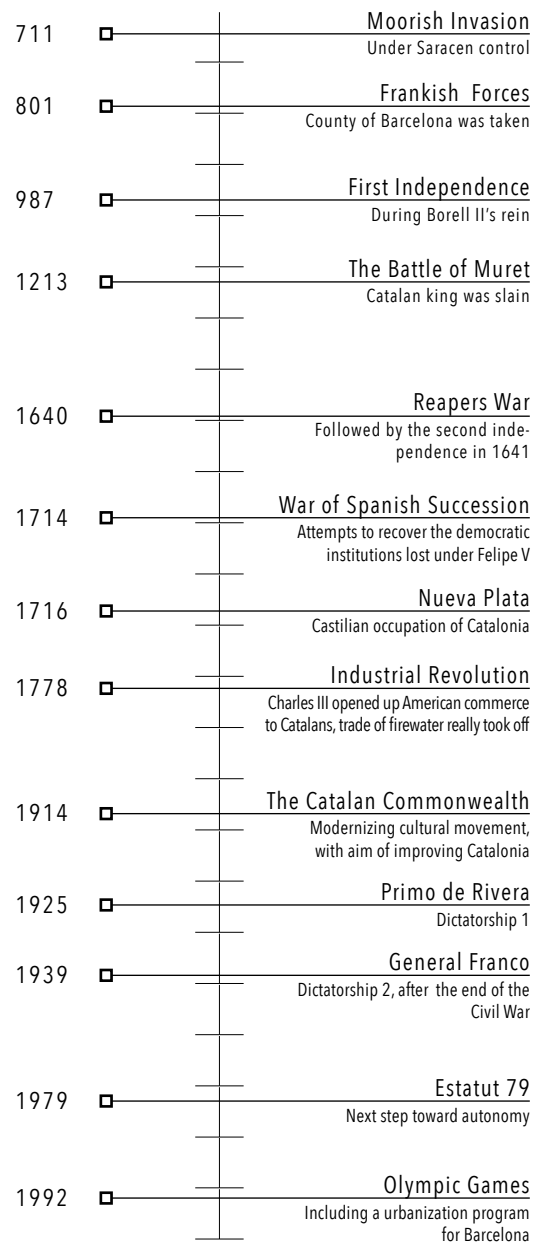
Use of brick in alla different directions. Brick covered beams for a slim appearance.

CATALONIA

# HISTORY

## HISTORY OF CATALONIA FROM AN INDEPENDENCE PERSPECTIVE

### TIMELINE - HISTORICAL EVENTS



# CULTURE

## FESTIVITIES AND CELEBRATION TRADITIONS OF CATALONIA

### CASTELLERS

One old catalan tradition is Castellers, which is a type of human towers where people in teams compete against each other over who can build the highest. People of all ages and gender participate and during big festivities, such as La Mercé, where a big crowd is cheering anyone can be asked to join in and help the team support the base. Or be a part of the protection net in case any would fall off the tower. The teams wear matching outfits and practice several kind of formations.



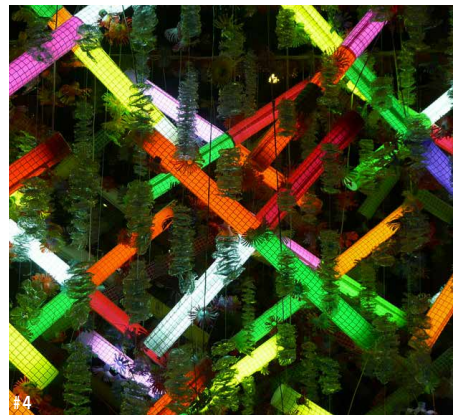
### CORREFOCS

Fire run, or Correfocs in catalan, is a tradition found in Barcelona during festivities. People dress up as devils or demons and some prepare dance routines accompanied by firecrackers, fire works, sparklers and music. Viewers dress in protective clothes and goggles to be able to come close to the parade. This tradition has its origins from the 12th century but was banned during the dictatorship of Franco. Today the tradition has spread all over Catalonia.



### FESTES MAJOR

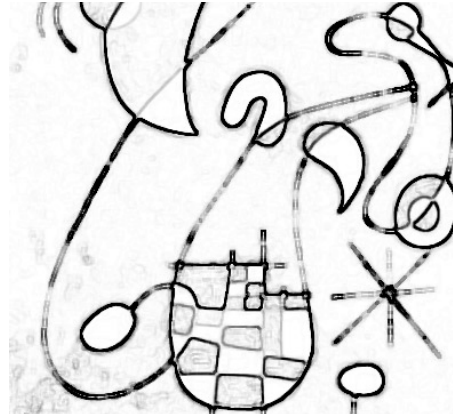
During the summer every year Festes Majores is being celebrated in the city of Barcelona and its closest surrounding. Neighborhood by neighborhood arranges different activities, events, shows and concerts. Colors are being highlighted, both in clothing and decorations. Each neighborhood has its own color. Included in the festival each street can theme and decorate the facade and in the end of the week one winner is announced.



### Joan Miró

Born in Barcelona, Joan Miró is one of the city's most famous painter, sculpture and ceramicist. With a child like style inspired by surrealism.

On the mountain of Montjuic is a museum dedicated to his work, the Fundació Joan Miró, and many of his sculptures decorates the streets of Barcelona. Some examples are *Woman and Bird* near Placa d'Espanya and his pavement decoration on La Rambla.



### Salvador Dalí

One of Catalonia's, and Spain's, most prominent surrealist is Salvador Dalí, born in Figueres.

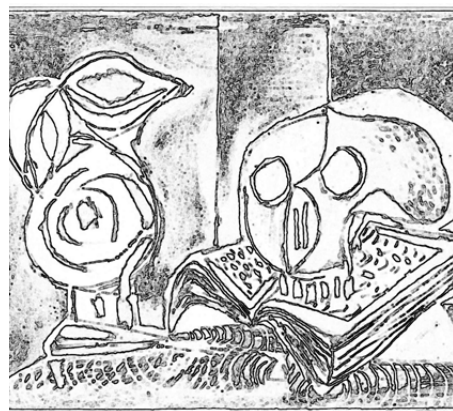
His art is known world wide but not very present in the area of Barcelona. But one train ride away, in the city of Figueres, it's possible to visit the Dalí Museum where some of his works are displayed. His surrealistic pieces creates a form language rich of curved lines and smoothness, with the feeling of melting.



### Pablo Picasso

The Málaga-born, Spanish artist Pablo Picasso is sometimes referred to as "Catalonia's adopted son", *M. Eude Catalonia - a cultural history*. He moved to Barcelona with his family in young age and grew up there.

Today it's possible to visit some of his work at the Picasso museum in el Born, where different style periods of his are being displayed. It's also possible to join guided tours around the city to experience the life of Picasso.



# CULTURE

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## CATALAN - LANGUAGE OF CATALONIA

### HISTORY

Apart from what many people think, Catalan is not a Spanish dialect but an own language. It developed from the Vulgar Latin and was the official language of the Kingdom of Arragon 1137-1749.

### AREA

Catalan is not only spoken in Catalonia. In Spain Valencia, the Balearic Isles, the eastern fringe of Aragon and some municipalities of Murcia also speak the language. And outside Spain it's Andorra, the northwest Sardinian and Roussillon in France.

### SIMILARITIES

The Catalan language has many similarities to both Castellano (Spanish) and French.

Catalan - adéu

Castellano - adios

English - good bye

Catalan - si us plau

French - s'il vous plaît

English - Please

# FALL OF 17'

## IMPORTANT DATES AND EVENTS

### TIMELINE - POLITICAL EVENTS

A vertical timeline showing political events in Catalonia from September 2017 to January 2018. The timeline is a vertical line with horizontal tick marks. Events are listed to the right of the line, with a small square icon on the line indicating the date. The events are: 24/9: Arrest of politicians and mayors; 25-29/9: Strike optional at ETSAV; 1/10: Vote referendum of independence; 3/10: Strike general strike and demonstration; 6/10: Approval of new law by catalan parliament; 9/10: Demonstration Spanish side; 16/10: Arrest of president of independence movement; 17/10: ETSAV class stop at 12.00 for student speech; 18/10: Suspension of catalan autonomy by Spain; 27/10: Declared Independence by catalan parliament, Spain start article 155; 30/10: Arrest of politicians if they return to work; 8/11: Strike general; 11/11: Demonstration to free political prisoners, 750k attended; 21/12: Vote for new catalan parliament; 17/1: New President of catalonia elected, Paramount; 30/1: Demonstration of Puigdemont for president.

24/9	□	Arrest of politicians and mayors
25-29/9	□	Strike optional at ETSAV
1/10	□	Vote referendum of independence
3/10	□	Strike general strike and demonstration
6/10	□	Approval of new law by catalan parliament
9/10	□	Demonstration Spanish side
16/10	□	Arrest of president of independence movement
17/10	□	ETSAV class stop at 12.00 for student speech
18/10	□	Suspension of catalan autonomy by Spain
27/10	□	Declared Independence by catalan parliament, Spain start article 155
30/10	□	Arrest of politicians if they return to work
8/11	□	Strike general
11/11	□	Demonstration to free political prisoners, 750k attended
21/12	□	Vote for new catalan parliament
17/1	□	New President of catalonia elected, Paramount
30/1	□	Demonstration of Puigdemont for president

SITE



# SITE ZOOM

## PARC DE BARCELONETA, BARCELONA, CATALONIA



### ZOOM x1

Catalonia is located on the northeast coast of Spain bordering to France and Andorra via the mountain chain Pyrenees. It consists of the four provinces Lleida, Tarragona, Girona and Barcelona. The city of Barcelona is the capital and is located in the centre of the coastline.

### ZOOM x10

Barcelona's city centre consists of different areas, where the one shown in the picture to the left is Eixample, Raval, Gothic quarters, El Born and Barceloneta.



### Important sites

- The two most central squares: Placa Catalunya and Urquinaona
- The two main streets: La Rambla and Via Laietana
- The monument: Arc de Triomf
- Two parks: Parc de Ciutadella and Parc de Barceloneta

### ZOOM x15

Parc de Barceloneta is the site chosen for this project and it's located by the beach of Barceloneta. Where the streets Carrer del gas and Passeig Martim together with the highway in the north closes the area.



The park lies on the site of a former Catalana de Gas factory that was demolished in 1989. Today it contains part that has been preserved from the factory that is used as a reminder of its history. During the 19th century Barcelona was the industrial headquarter of Spain, the "The Manchester of the Mediterranean", S.Harris Catalonia is not Spain - a historical perspective. In Barceloneta gas was the main industry.

Designers of the park are Jordi Henrich and Olga Tarrasó. They conserved the old water tower, Torre de les Aigües, and used the laminated steel structure of the gasometer and turned it into a basketball court. A part from the court and the water tower, the park contains a football field, the restaurant Gamar and a statue of Simón Bolívar. As well as two small playgrounds and a couple of benches and ping pong tables.

Another conservation of the old gas factory is the office building itself, located next to the park. Today it's used by Fàbrica del sol.

Despite these different elements the park is rarely used. While the outside gym, on the other side of Passeig Martim, is occupied at any time of the day.

# SITE DOCUMENTATION

## QUALITIES OF THE AREA

### VIEWS - elements of the area



#### STATUE

Simón Bolívar was important for making several South American states independent from Spanish rule.



#### STREET ART

Picasso inspired graffiti decorates a wall of the football field. "Truth, justice, reparation - because they were us".



#### BEACH

Opposite the street is the beach of Barceloneta, a busy place during summer and winter.

### SOCIAL SPACES - things to do in the area



#### CAFÉ

The park has a Café, named Gamar, with outdoor seating and the possibility to borrow books.



#### PLAYGORUND 1

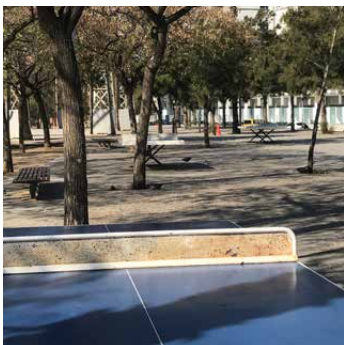
One playground, in the color red, is located in between a basketball court and a football field.



#### PLAYGORUND 2

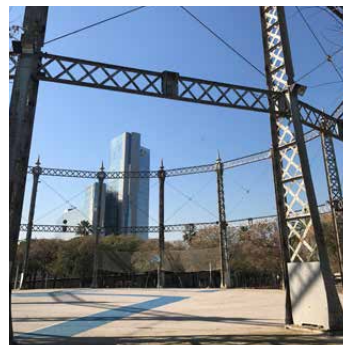
One playground, in the colors red and blue, is located next to Café Gamar.

### SPORTS - activities in the area



#### TABLE TENNIS

Five ping pong tables are placed along side the street Carrer del gas.



#### BASKETBALL

A circular basketball court with a 20 m high metal frame fence is located on the site.



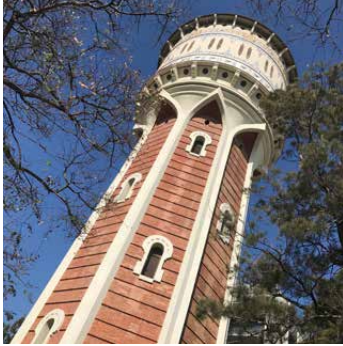
#### FOOTBALL

A football field is located on one corner of site, belonging to the club C.F.B.

# SITE DOCUMENTATION

## BRICKS OF THE AREA

TORRE DE LES AIGÜES - a water tower in brick



### TOWER

A water tower from 1905, designed by the Modernist architect Joseph Domènech i Estapà.



### BRICKS

Catalan bricks, formed by playing with depth. Creates a resemblance with the striped catalan flag.



### BRICKS

Bricks framing a window opening to support the loads of previous glass installation.

CLUB DE FÚTBOL LA CATALANA - football field



### FENCE

Brick wall protecting the football field from wind and sight.



### BRICKS

Spanish brick in a brown color put in two types of directions by layer.



### DIRECTION

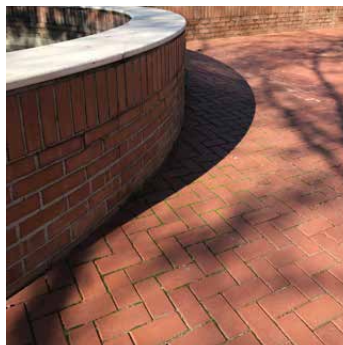
Top layer is put in a different direction, as well as corners between different height.

PARC DE LES CASCADES - by Av. del Litoral



### PARK

A brick landscape in between the two busy streets Av. del Litoral and Carrer de Salvador Espriu.



### BRICKS

Spanish bricks put in different pattern and direction to create wall, floor and bench.

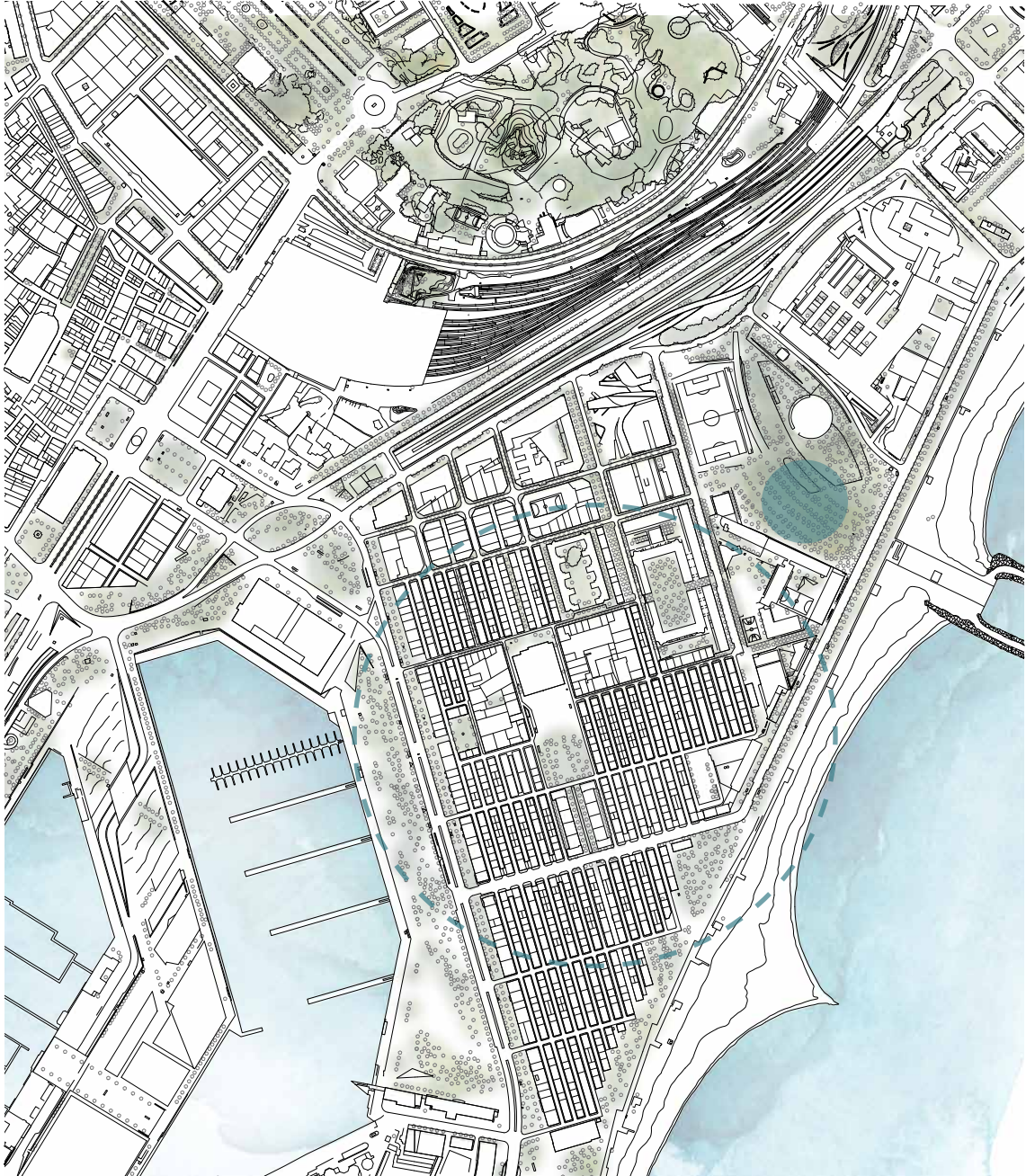


### CONSTRUCTION

Use of different combination of direction to create stair steps out of brick.

# SITE DOCUMENTATION

## LOCATION OF THE PARC IN A BIGGER CONTEXT



1:8000

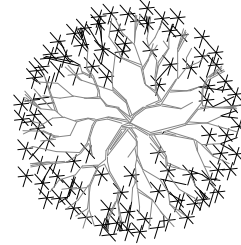
# SITE DOCUMENTATION

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## BIODIVERSITY: PLANTS AND TREES OF THE PARC

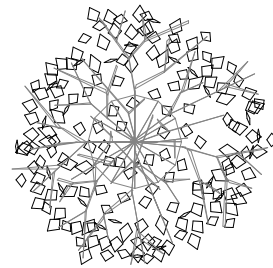
### ALEPPO PINE TREES

Type of pine tree common in the Mediterranean region, often found at low altitudes close to the sea. It's medium sized (15-20 m) and with slender needle leaves and conic cones.



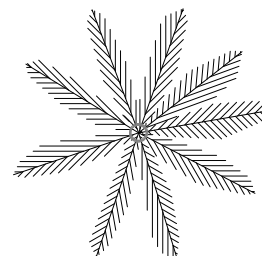
### TIPU TREES

Also called Tipuana and is mostly found in south america. It can grow up to 30 m and is often used for shading. The leaves are pinnately compound and it's flowers bright yellow.



### PALM TREES

Both on site and along the street bordering to the beach. That type of subtropical palm tree commonly found in the along the catalan coast line, with tall slim branches and short sprawling leaves.



BRICK

# CATALONIAN vs CASTILIAN

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## DIFFERENCES BETWEEN BRICKS

### CATALAN BRICKS

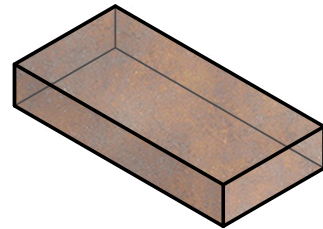
This type of brick is famous for being used to construct catalan vaults.

Measurements of the Catalan brick are:

Length - 29 cm

Depth - 14 cm

Height - 5 cm



### CASTILIAN BRICKS

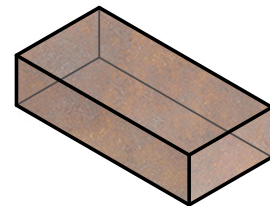
This type of brick is similar to the European standardization.

Measurements of the Castilian brick are:

Length - 24 cm

Depth - 11.5 cm

Height - 6 cm

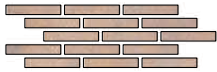


# PATTERN

## SEPARATE & COMBINED - STRETCHER, SHINDER

### STRETCHER

100% CATALAN



Visibility  
100% Catalan 0% Castilian

100% CASTILIAN

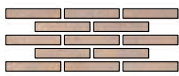


Visibility  
0% Catalan 100% Castilian

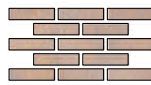
52% CATALAN, 48% CASTILIAN



Visibility  
47% Catalan 53% Castilian



Visibility  
100% Catalan 0% Castilian



Visibility  
0% Catalan 100% Castilian



Visibility  
47% Catalan 53% Castilian



Visibility  
100% Catalan 0% Castilian



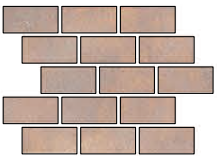
Visibility  
0% Catalan 100% Castilian



Visibility  
47% Catalan 53% Castilian

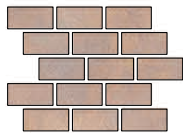
### SHINDER

100% CATALAN



Visibility  
100% Catalan 0% Castilian

100% CASTILIAN

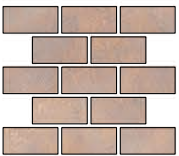


Visibility  
0% Catalan 100% Castilian

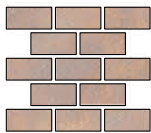
52% CATALAN, 48% CASTILIAN



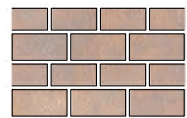
Visibility  
56% Catalan 44% Castilian



Visibility  
100% Catalan 0% Castilian



Visibility  
0% Catalan 100% Castilian



Visibility  
56% Catalan 44% Castilian



Visibility  
100% Catalan 0% Castilian



Visibility  
0% Catalan 100% Castilian



Visibility  
56% Catalan 44% Castilian



# PATTERN

## SEPARATE & COMBINED - HEADER, ISOMETRIC

### HEADER

100% CATALAN



Visibility  
100% Catalan 0% Castilian

100% CASTILIAN



Visibility  
0% Catalan 100% Castilian

52% CATALAN, 48% CASTILIAN



Visibility  
47% Catalan 53% Castilian



Visibility  
100% Catalan 0% Castilian



Visibility  
0% Catalan 100% Castilian



Visibility  
47% Catalan 53% Castilian



Visibility  
100% Catalan 0% Castilian



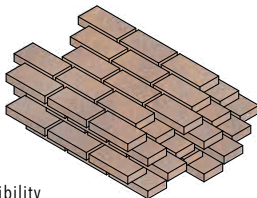
Visibility  
0% Catalan 100% Castilian



Visibility  
47% Catalan 53% Castilian

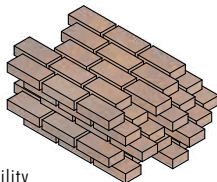
### ISOMETRIC

100% CATALAN



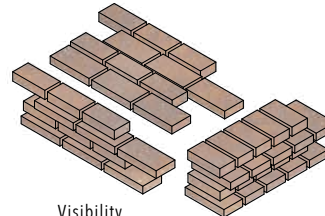
Visibility  
100% Catalan 0% Castilian

100% CASTILIAN

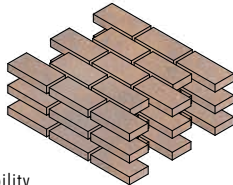


Visibility  
0% Catalan 100% Castilian

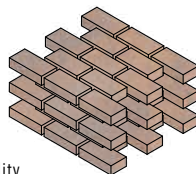
52% CATALAN, 48% CASTILIAN



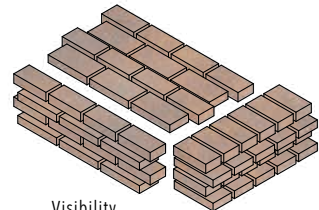
Visibility  
52% Catalan 48% Castilian



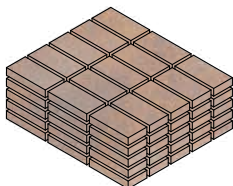
Visibility  
100% Catalan 0% Castilian



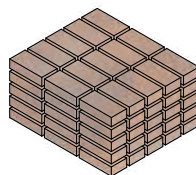
Visibility  
0% Catalan 100% Castilian



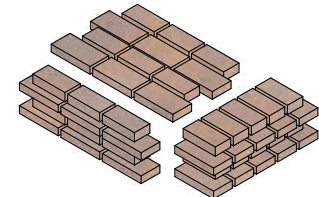
Visibility  
52% Catalan 48% Castilian



Visibility  
100% Catalan 0% Castilian



Visibility  
0% Catalan 100% Castilian



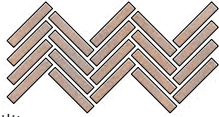
Visibility  
52% Catalan 48% Castilian

# PATTERN

## DIFFERENT PATTERNS - STRETCHER, SHINDER

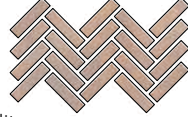
### STRETCHER

100% CATALAN



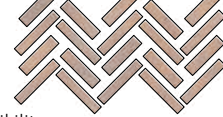
Visibility  
100% Catalan      0% Castilian

100% CASTILIAN

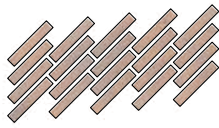


Visibility  
0% Catalan      100% Castilian

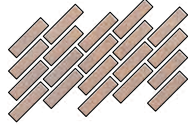
55% CATALAN, 45% CASTILIAN



Visibility  
50% Catalan      50% Castilian

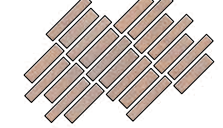


Visibility  
100% Catalan      0% Castilian

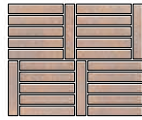


Visibility  
0% Catalan      100% Castilian

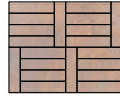
55% CATALAN, 45% CASTILIAN



Visibility  
50% Catalan      50% Castilian



Visibility  
100% Catalan      0% Castilian



Visibility  
0% Catalan      100% Castilian

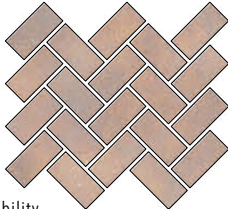
83% CATALAN, 17% CASTILIAN



Visibility  
80% Catalan      20% Castilian

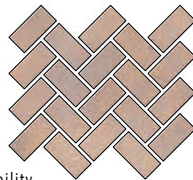
### SHINDER

100% CATALAN



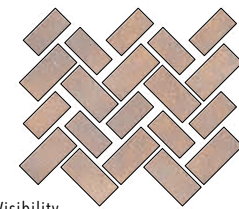
Visibility  
100% Catalan      0% Castilian

100% CASTILIAN

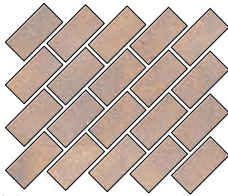


Visibility  
0% Catalan      100% Castilian

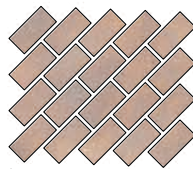
55% CATALAN, 45% CASTILIAN



Visibility  
59% Catalan      41% Castilian

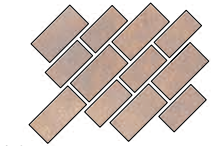


Visibility  
100% Catalan      0% Castilian



Visibility  
0% Catalan      100% Castilian

55% CATALAN, 45% CASTILIAN



Visibility  
59% Catalan      41% Castilian

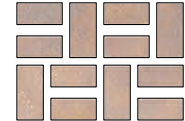


Visibility  
100% Catalan      0% Castilian



Visibility  
0% Catalan      100% Castilian

38% CATALAN, 62% CASTILIAN

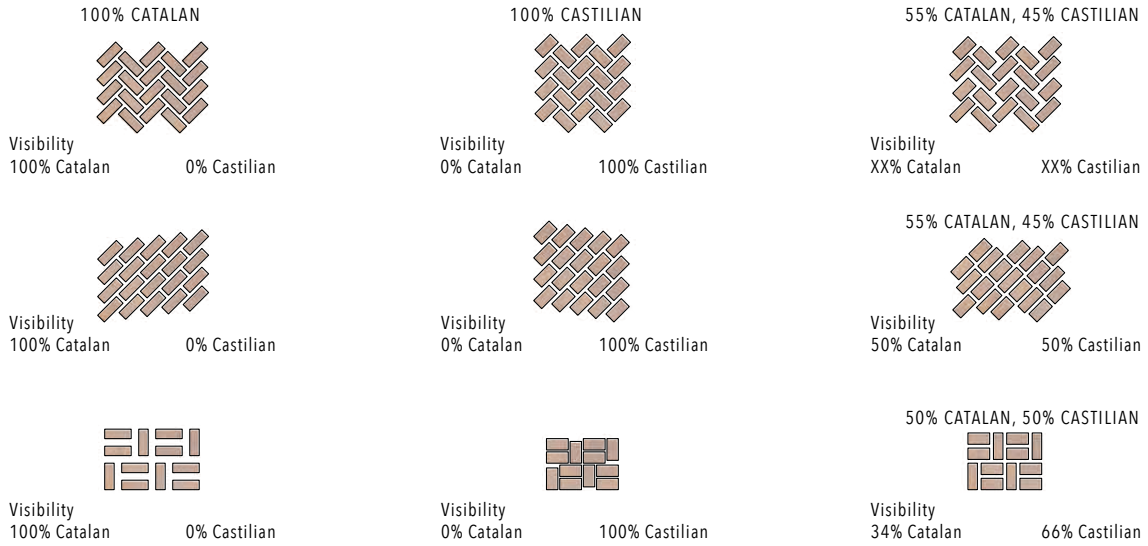


Visibility  
42% Catalan      58% Castilian

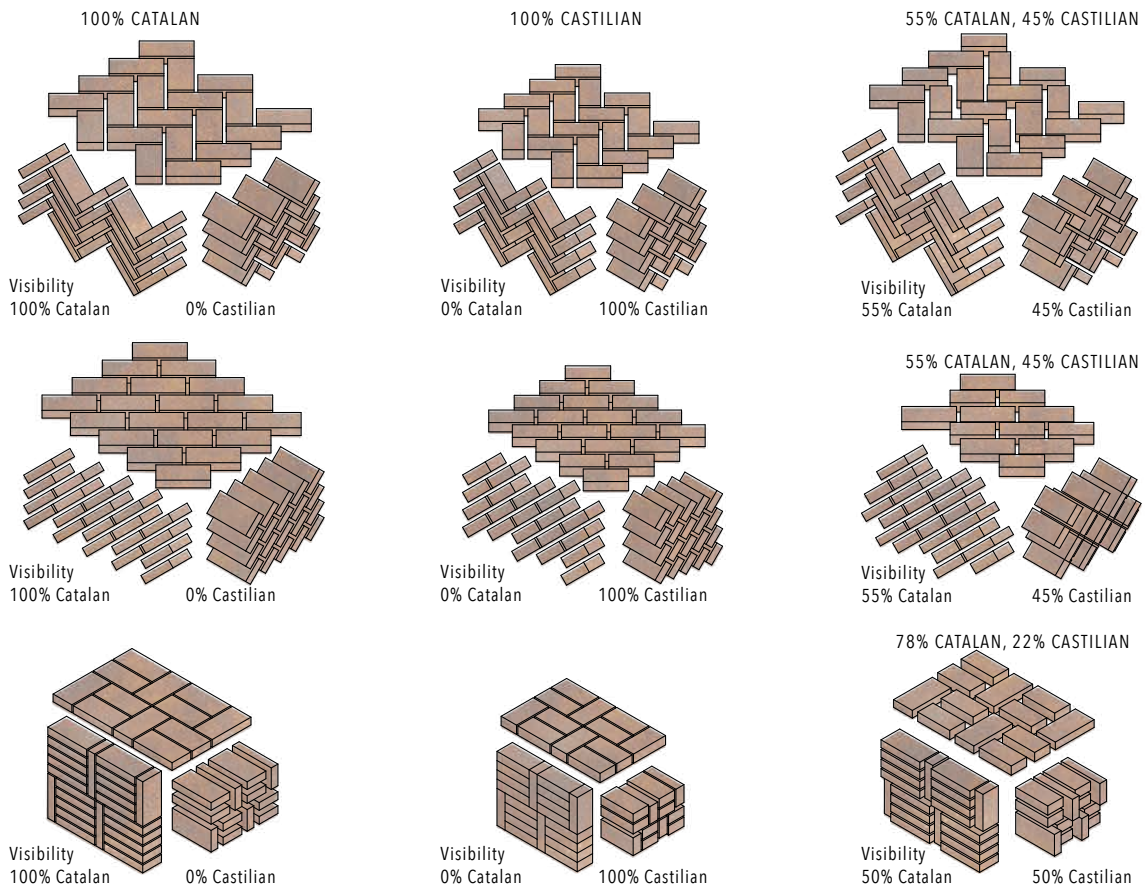
# PATTERN

## DIFFERENT PATTERNS - HEADER, ISOMETRIC

### HEADER



### ISOMETRIC



# BRICK TECHNIQUES

## COMMON CATALAN BONDS

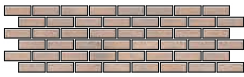
**BOND 1**



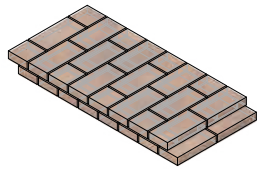
Layer 1



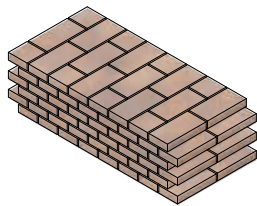
Layer 2



Elevation



Isometric of layer types



Isometric of combination

**BOND 2**



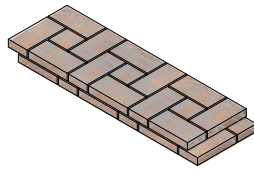
Layer 1



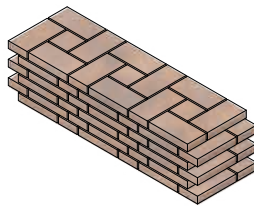
Layer 2



Elevation



Isometric of layer types



Isometric of combination

**BOND 3**



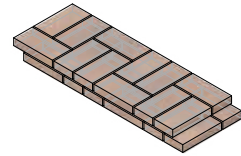
Layer 1



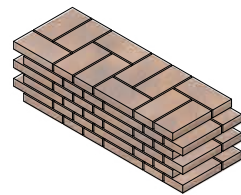
Layer 2



Elevation



Isometric of layer types



Isometric of combination

# BRICK TECHNIQUES

## COMMON CATALAN BONDS

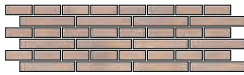
**BOND 4**



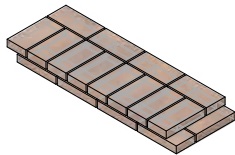
Layer 1



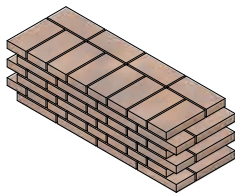
Layer 2



Elevation



Isometric of layer types



Isometric of combination

**BOND 5**



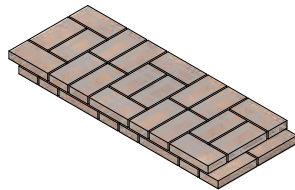
Layer 1



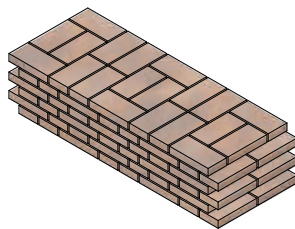
Layer 2



Elevation



Isometric of layer types

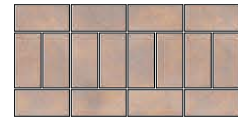


Isometric of combination

**BOND 6**



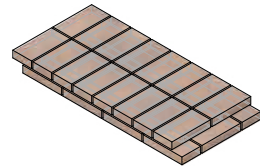
Layer 1



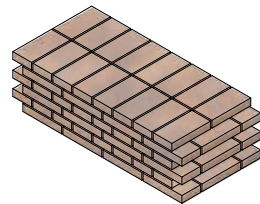
Layer 2



Elevation



Isometric of layer types

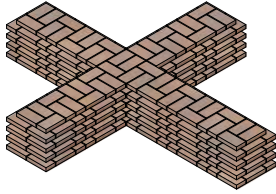


Isometric of combination

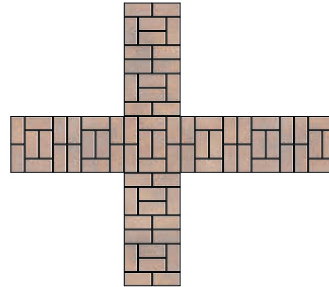
# BRICK TECHNIQUES

## INTERSECTION BY USE OF BONDS

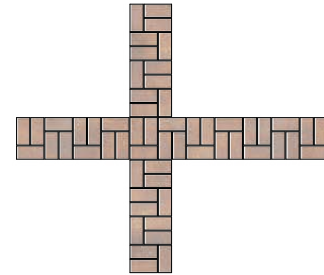
### WIDE INTERSECTIONS



**ISOMETRIC**  
Intersection using bond with 59 cm width and under layer with 44 cm width.

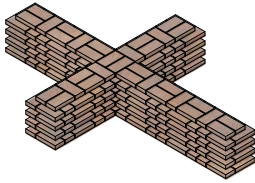


**LAYER 1**  
Top layer using bond 5 with a 59 cm width.

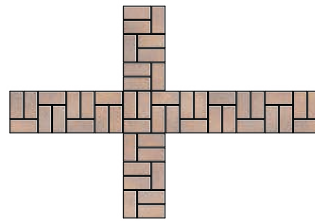


**LAYER 2**  
Lower layer using bond 3 with a 44 cm width.

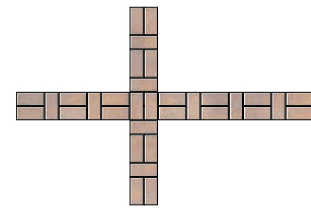
### INTERSECTIONS



**ISOMETRIC**  
Intersection using bond with 44 cm width and under layer with 29 cm width.

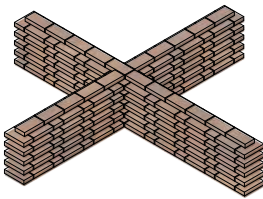


**LAYER 1**  
Top layer using bond 3 with a 44 cm width.

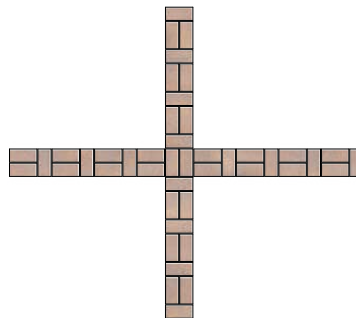


**LAYER 2**  
Lower layer using simplified variation of bond 3 with a 29 cm width.

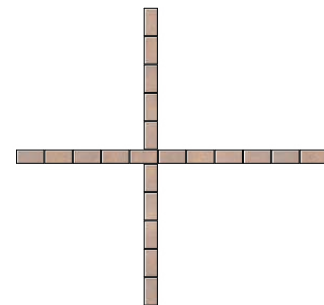
### NARROW INTERSECTIONS



**ISOMETRIC**  
Intersection using bond with 29 cm width and under layer with 14 cm width.



**LAYER 1**  
Top layer using simplified variation of bond 3 with a 29 cm width.

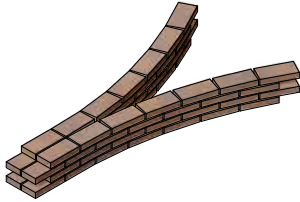


**LAYER 2**  
Lower layer using straight row of bricks, 14 cm width.

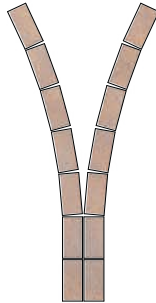
# BRICK TECHNIQUES

## INTERSECTION BY USE OF SPLITTING

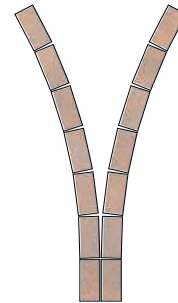
### 2 BRICK WIDTH SPLIT



**ISOMETRIC**  
Splitting 1 wall using bond with 2 brick width, into 2 walls with 1 brick width.

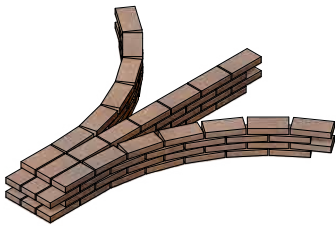


**LAYER 1**  
Top layer, angle change of 5 degrees.

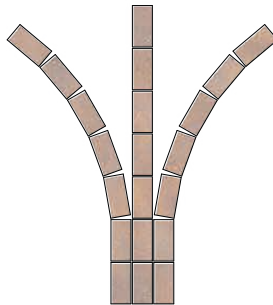


**LAYER 2**  
Lower layer pushed 15 cm.

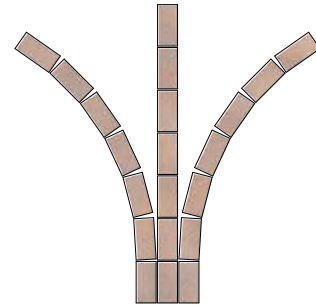
### 3 BRICK WIDTH SPLIT



**ISOMETRIC**  
Splitting 1 wall using bond with 3 brick width, into 3 walls with 1 brick width.

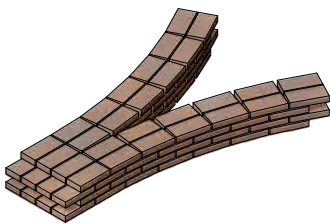


**LAYER 1**  
Top layer, angle change of 10 degrees, center straight.

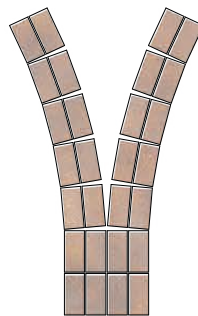


**LAYER 2**  
Lower layer pushed 15 cm.

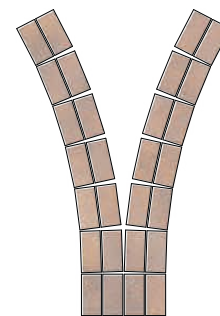
### 4 BRICK WIDTH SPLIT



**ISOMETRIC**  
Splitting 1 wall using bond with 4 brick width, into 2 walls with 2 brick width.



**LAYER 1**  
Top layer, angle change of 5 degrees.



**LAYER 2**  
Lower layer pushed 15 cm.

# BRICK TECHNIQUES

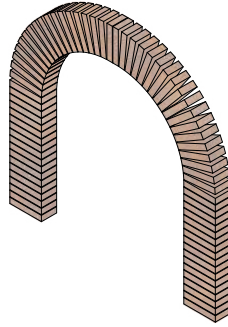
## EXAMPLES OF CATALAN ARCHES AND VAULTS

### ARCHES - columns creating frames



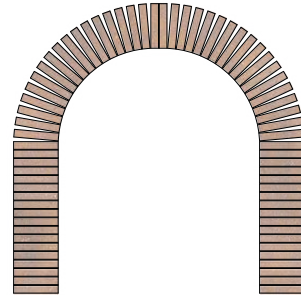
#### STRUCTURAL ARCH

Example from arched pillars inside UPF Library, by parc de Ciutadella.



#### SYSTEM

Angled bricks, 5 degree increase per step, working in compression.



#### PROFILE

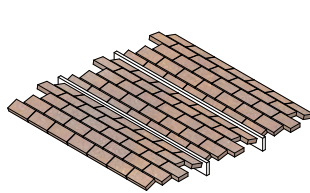
Together 72 bricks crate an arch with a 1.5 m wide and 1.6 m high span.

### ROOF - typical catalan vault roof



#### CATALAN VAULT

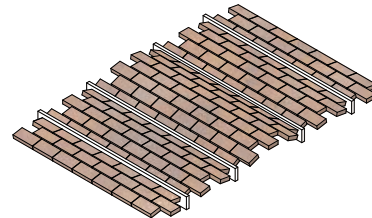
Example from the roof inside Fabrica Mortitz in Sant Antoni.



3 partitions



Profile



5 partitions



Profile

#### SYSTEM

Angled bricks with shinder facing down, working in compression. Layers of 5.

#### EXPANDED ALTERNATIVE

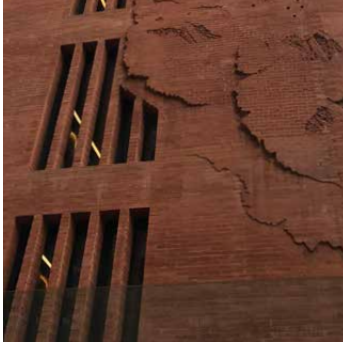
Varying the number of layers. Different bond and higher arch.



# BRICK TECHNIQUES

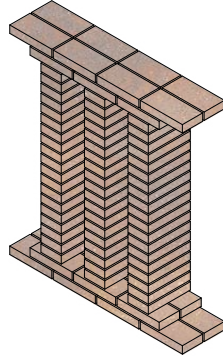
## EXAMPLES OF OPENINGS FROM CATALAN BUILDINGS

### OPENINGS - stacked bricks into mullions



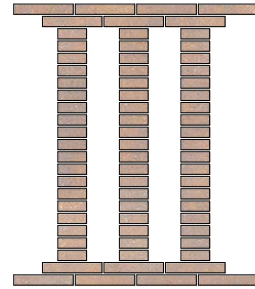
#### STRUCTURAL ARCH

Example from large opening with mullion in the facade of Palau de la Música Catalana.



#### SYSTEM

Stacked bricks creating load bearing mullions for larger openings.



#### PROFILE

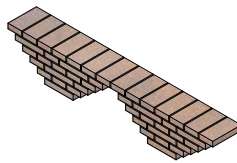
Example of a 3 layer mullion with header side facing forward.

### OPENINGS - combined with pillars

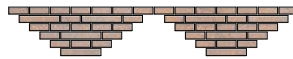


#### EXTENDED WIDTH

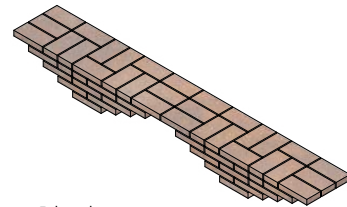
Example from the entrance of Casa de les Punxes in Eixample.



6 levels



Profile



5 levels



Profile

#### SYSTEM

2 bricks depth with two types of layers, alternated.

#### EXPANDED ALTERNATIVE

3 brick depth with one type of layer with varied center.

# BRICK TECHNIQUES

## ANALYSIS OF GAUDÍ BRICK WORK



**CHURCH TOWERS**  
Sagrada Família, Barcelona



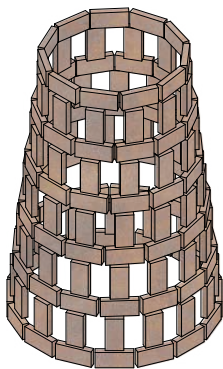
**ROOF SKELETON**  
Casa Milà, Barcelona



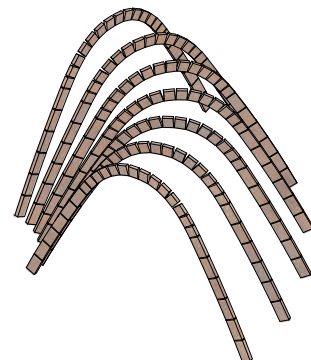
**ORIGINAL IDEA**  
Many of Gaudí's towers are based on the structure of the tradition Castellers.



**ORIGINAL IDEA**  
By using gravity Gaudí calculated the skeleton shapes of his structures.



**SIMPLIFIED INTERPRETATION**  
Layers of brick with two directions alternated. First layer creating a circle held together by mortar, second layer separated creating openings.



**SIMPLIFIED INTERPRETATION**  
Brick skeleton through arches with half bricks used for the upper part. One layer of bricks explained above, in reality a second layer with overlap is added.

# BRICK TECHNIQUES

## ANALYSIS OF GUASTAVINO BRICK WORK



### #6 CURVED ROOF

Guastavino's, New York City. An event space named after him.



### #7 SPIRAL STAIRCASE

St. Paul's chapel at Columbia University



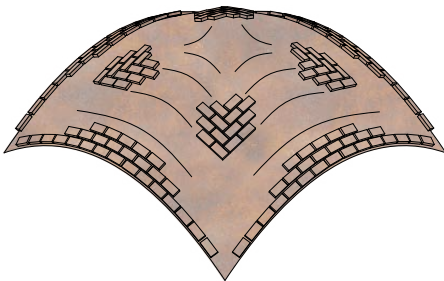
### #8 ORIGINAL IDEA

The dimensions of the catalan bricks make it possible to create double curved surfaces.



### #9 ORIGINAL IDEA

By using Catalan bricks Guastavino managed to create slim stair structures.



### SIMPLIFIED INTERPRETATION

Roof structure in compression with four arched openings and four points of support. One layer of bricks explained above, in reality a second layer with overlap is added.



### SIMPLIFIED INTERPRETATION

Brick wall with rotation following a spiral inner line, creating a smooth curved surface. Support from floor and wall.

# CULTURE INTO BRICKS

## SYSTEM OF CASTELLERS TRANSLATED INTO BRICKS

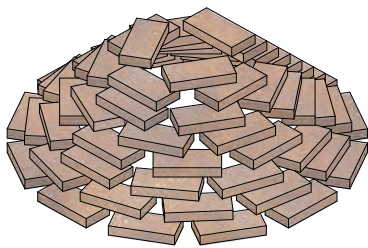


### STRUCTURE

The structure of castellers is based on a heavy bottom and a lighter top. Each element rests on the one underneath and holds up the one above. They stand together in a circular formation, raising together by building level by level.

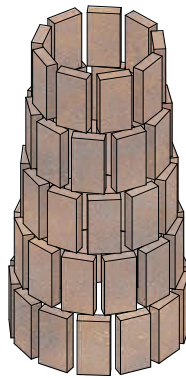
The body can be represented as the load bearing brick and the arms holds together like the mortar.

The bricks are arranged circular moving closer to the center for each level



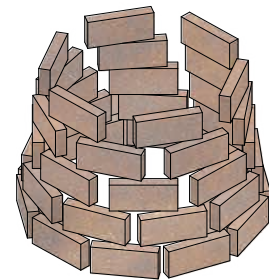
#### DIRECTION 1

Stretcher side facing forward. Range of 12-3 bricks in 8 layers,



#### DIRECTION 2

Shinder side facing forward. Range of 13-9 bricks in 5 layers,



#### DIRECTION 3

Header side facing forward. Range of 10-6 bricks in 5 layers,

# CULTURE INTO BRICKS

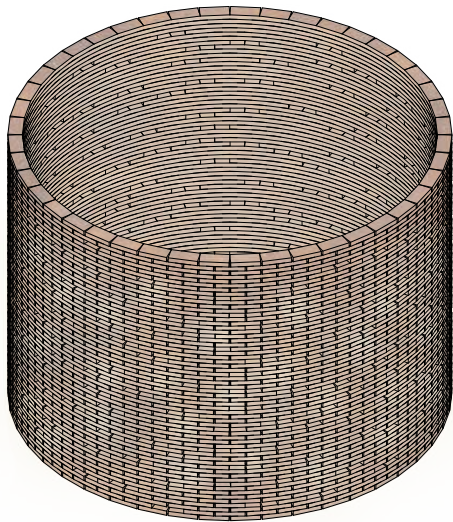
## SYSTEM OF CORREFOCS TRANSLATED INTO BRICKS



### PATTERNS

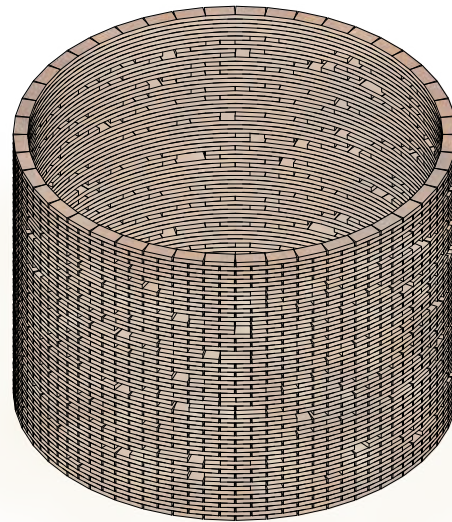
The pattern of correfocs is created through the circular movement of the sparkles, spreading more the further it gets. The fire mostly spread horizontally but some sparkles move more vertically.

The different pieces of glowing coal can be represented by the light from each removed brick within the wall, creating a light pattern.



#### LOW LEVEL OF CAVITIES

Lower number of bricks removed from the circular wall. Evenly spread through out the space.

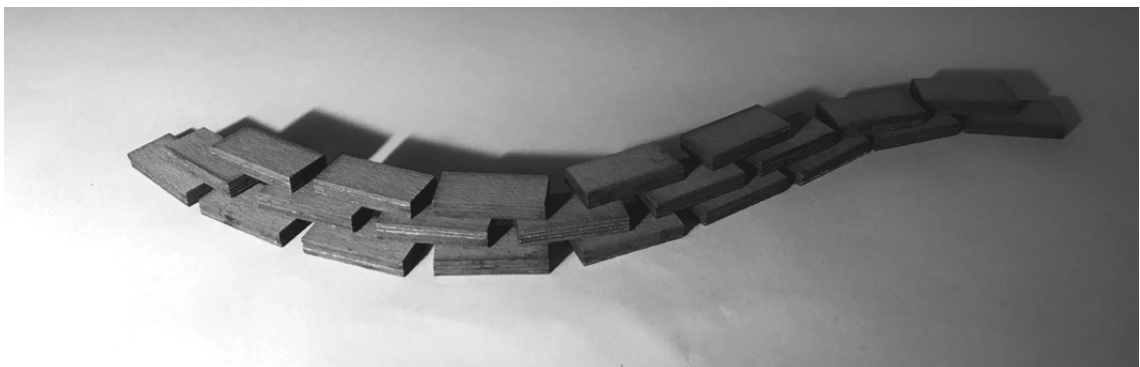
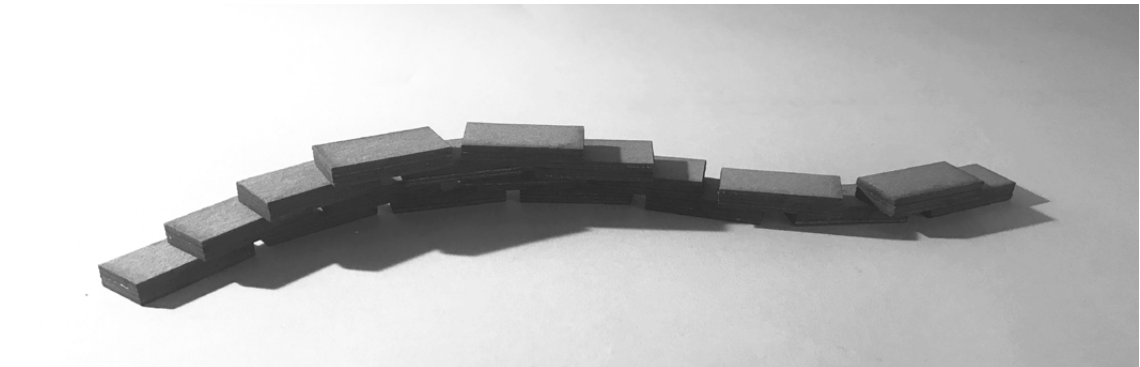
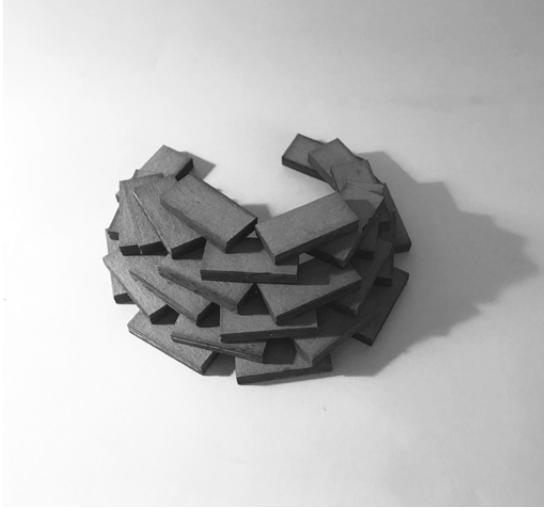


#### HIGH LEVEL OF CAVITIES

Higher number of bricks removed from the circular wall. Randomly spread out through out the space.

# CULTURE INTO BRICKS

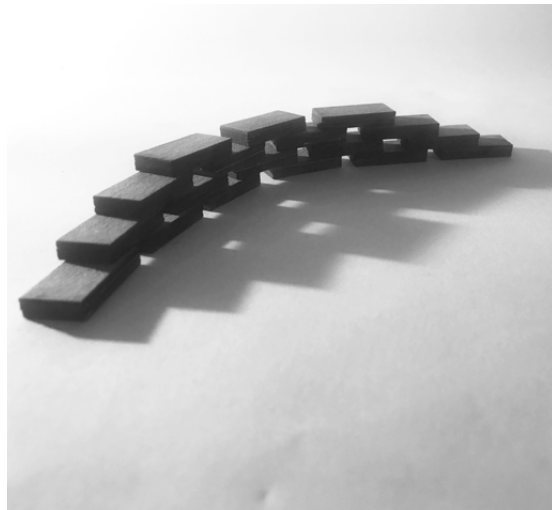
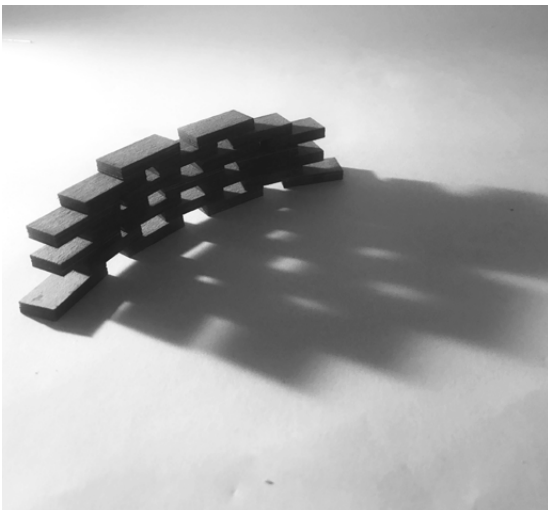
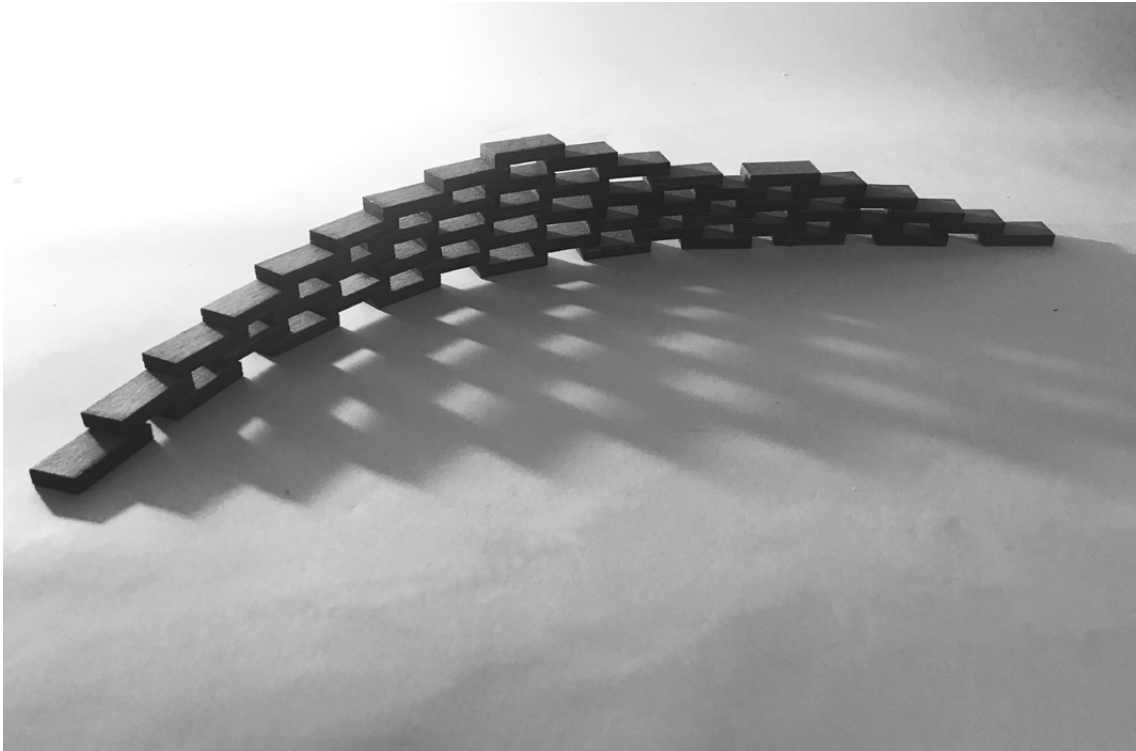
## MODELS OF THE CASTELLERS STRUCTURE



# CULTURE INTO BRICKS

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MODELS SHOWING LIGHT & SHADOWS FROM CAVITIES

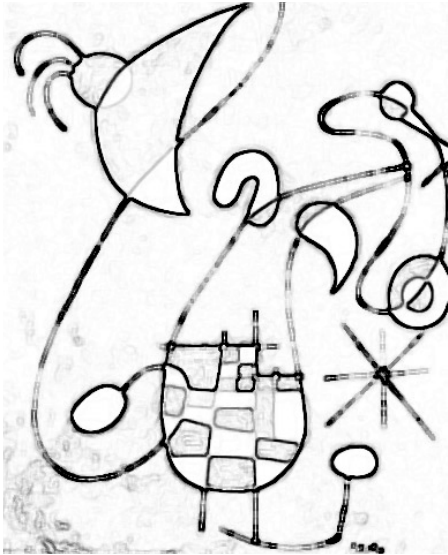


## FORM FINDING



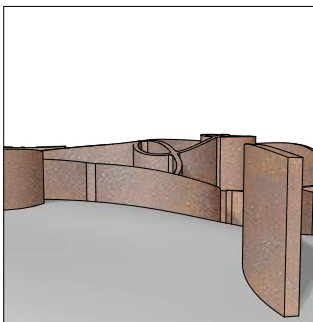
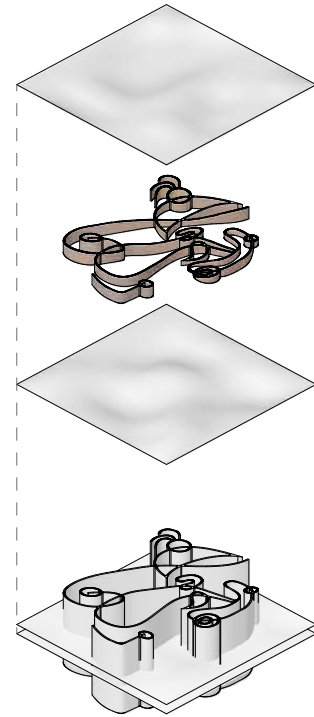
# CULTURE INTO FORMATION

STYLE OF JOAN MIRÓ TRANSLATED INTO GEOMETRY

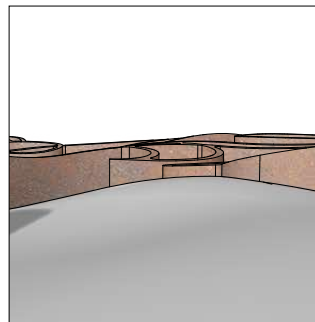


Interpretation of a Miró painting.

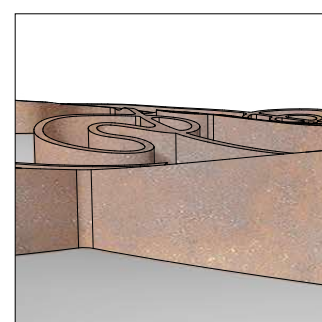
Outlines traced then extruded and cut by curved planes.



VIEW 1 - Leading entrance



VIEW 1 - Seating area on a hill top



VIEW 1 - Protective front wall

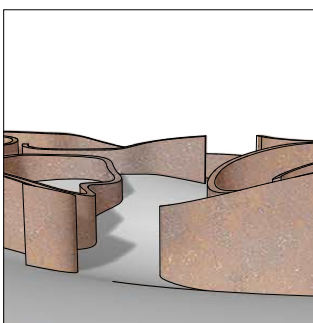
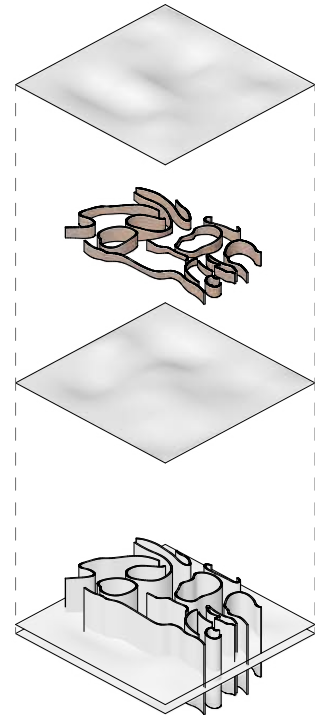
# CULTURE INTO FORMATION

STYLE OF SALVADOR DALÍ TRANSLATED INTO GEOMETRY

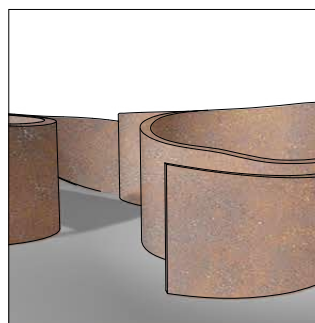


Interpretation of a Dalí painting.

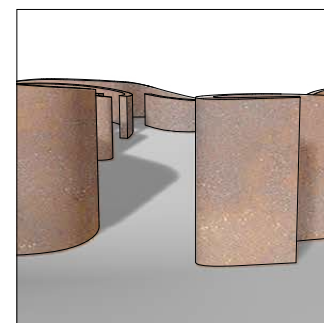
Outlines traced then extruded and cut by curved planes.



VIEW 1 - Valley glade



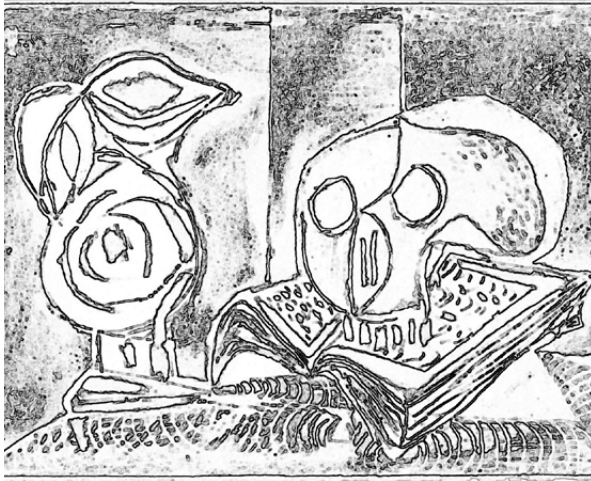
VIEW 1 - Row of curves



VIEW 1 - Hidden opening

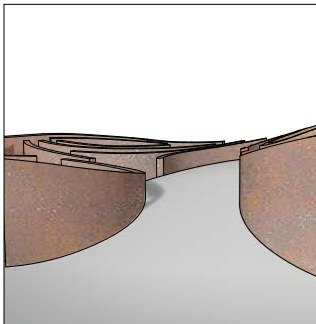
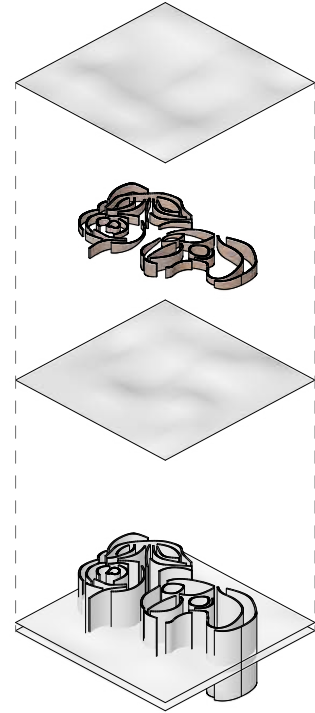
# CULTURE INTO FORMATION

STYLE OF PABLO PICASSO TRANSLATED INTO GEOMETRY

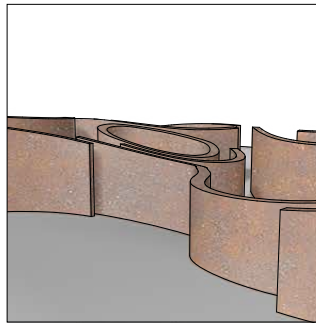


Interpretation of a Picasso painting.

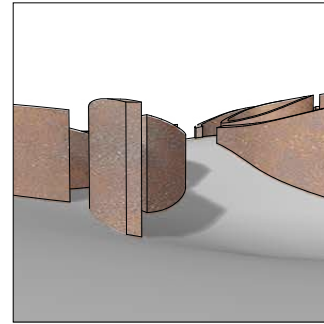
Outlines traced then extruded and cut by curved planes.



VIEW 1 - Entrance with inclination



VIEW 1 - Wave formation



VIEW 1 - Narrow and wide entrances

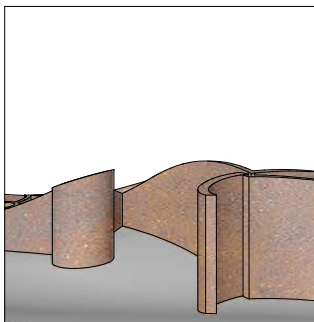
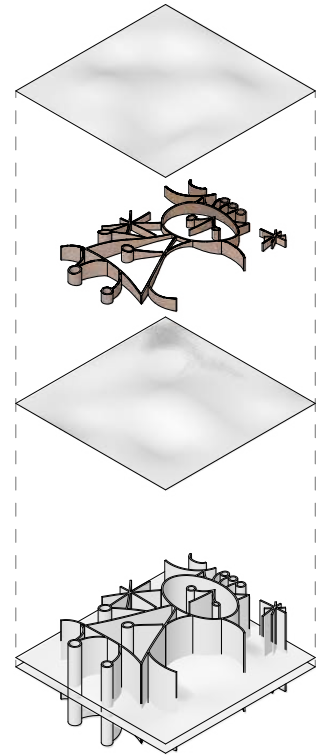
# ALTERNATIVE MIRÓ

## SECOND PIECE TRANSLATED INTO GEOMETRY

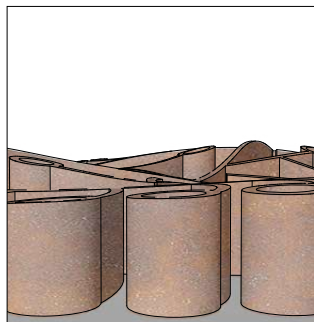


Interpretation of a Miró painting, nr 2.

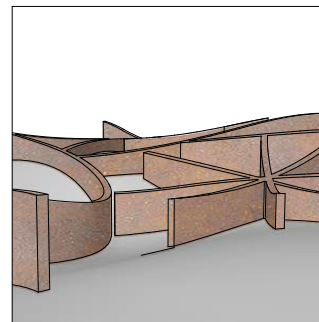
Outlines traced then extruded and cut by curved planes.



VIEW 1 - Smaller hill



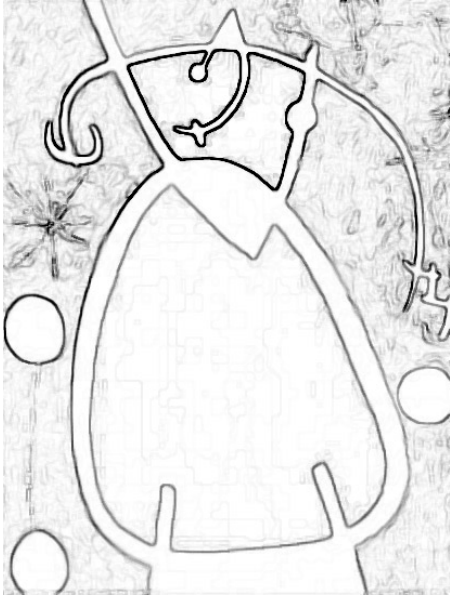
VIEW 1 - Front tubes



VIEW 1 - Large star arrangement

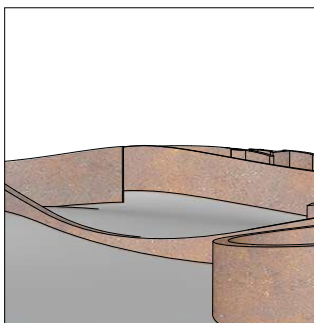
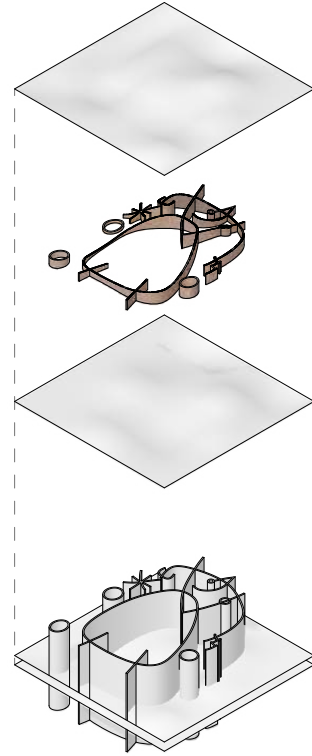
# ALTERNATIVE MIRÓ

## THIRD PIECE TRANSLATED INTO GEOMETRY

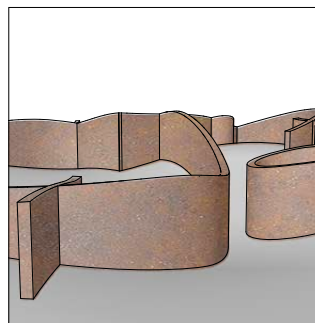


Interpretation of a Miró painting, nr 3.

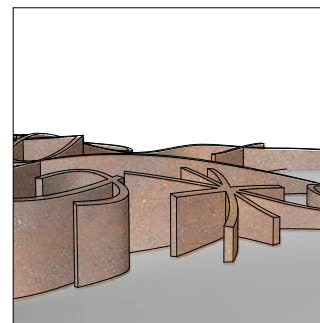
Outlines traced then extruded and cut by curved planes.



VIEW 1 - Low front wall



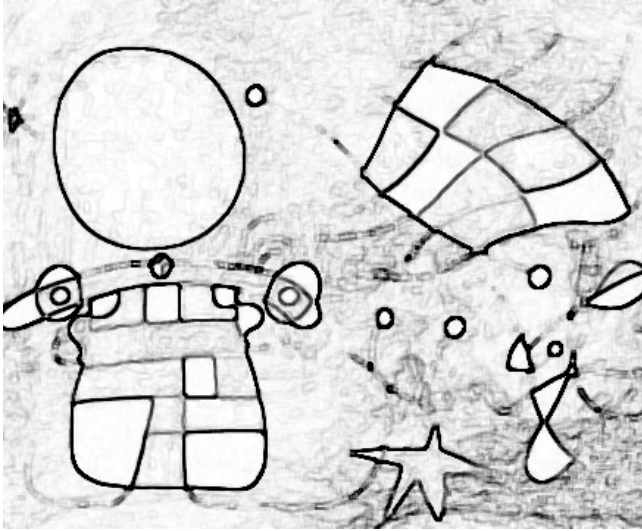
VIEW 1 - Smaller glade



VIEW 1 - Small star arrangement

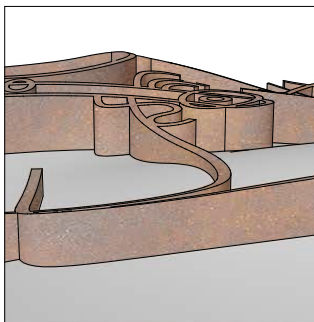
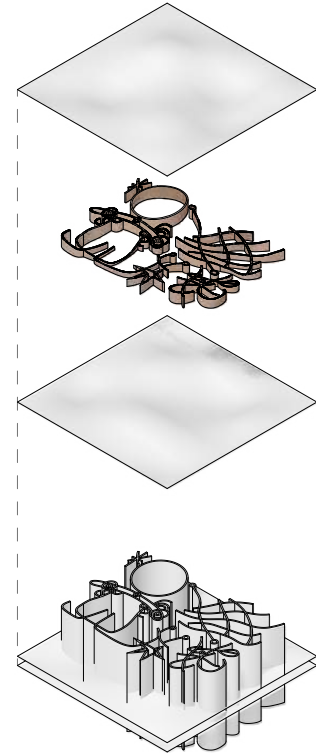
# ALTERNATIVE MIRÓ

FORTH PIECE TRANSLATED INTO GEOMETRY

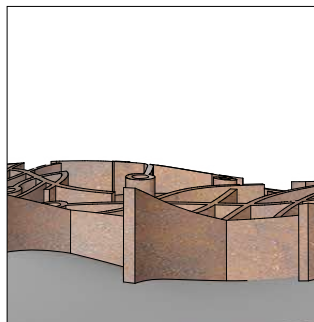


Interpretation of a Miró painting, nr 4.

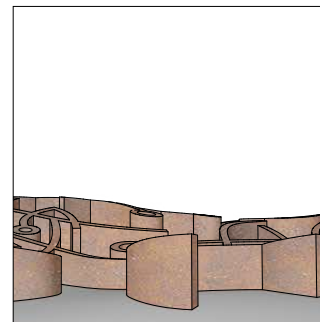
Outlines traced then extruded and cut by curved planes.



VIEW 1 - Front limit



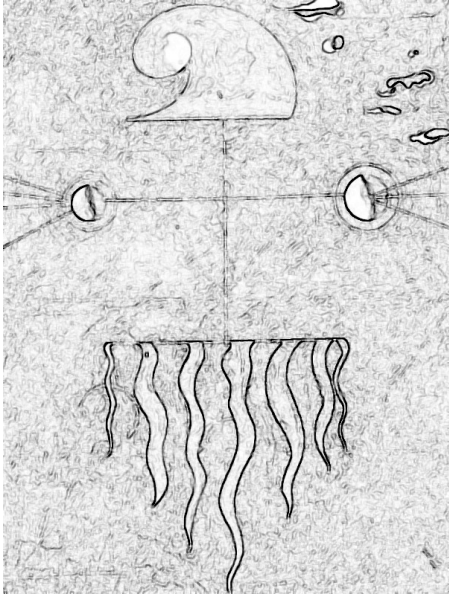
VIEW 1 - Grid of walls



VIEW 1 - Alternative entrance

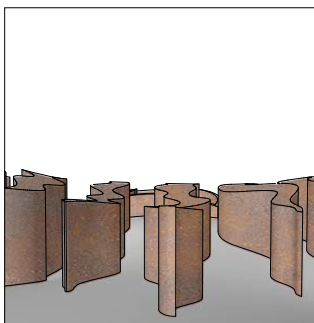
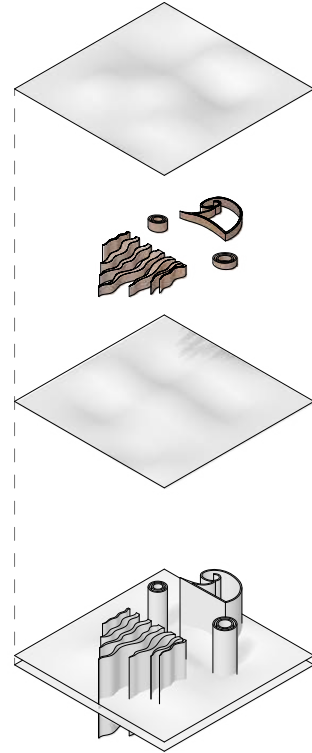
# ALTERNATIVE MIRÓ

## FIFTH PIECE TRANSLATED INTO GEOMETRY

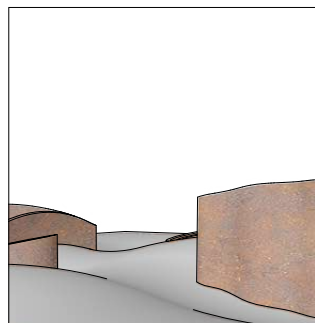


Interpretation of a Miró painting, nr 5.

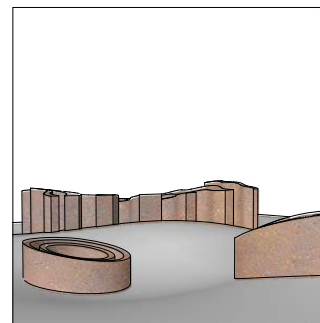
Outlines traced then extruded and cut by curved planes.



VIEW 1 - Curved walls



VIEW 1 - Separated spaces



VIEW 1 - Division of three parts

CAVITIES



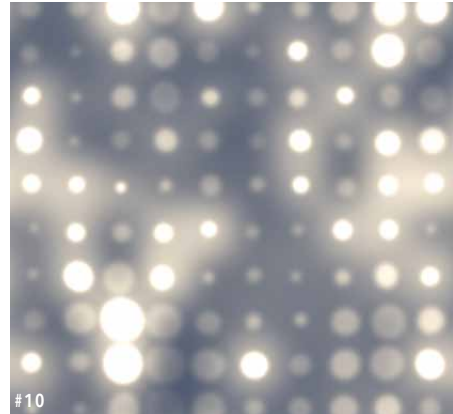
# DAY & NIGHT

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## USING CAVITIES TO CHALLENGE BRICK WORK

### Day Pattern

Using cavities to create light pattern on the inside of the brick structure. A way to further push the brick formations and shells while creating dramatic interiors through the spread of daylight. With the effects changing through out the day when the position of the sun changes.



### Night Pattern

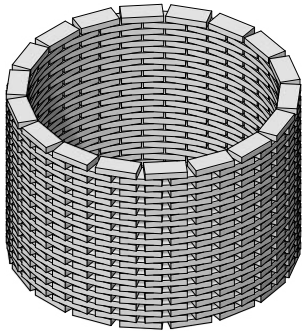
Using cavities to create light pattern on the outside of the brick structure. The openings from the extractions of bricks will also create dramatic light pattern during night time when light fixtures on the inside are turned on. This creates light patterns from artificial light turning the structures into lanterns during night.



# DAY & NIGHT

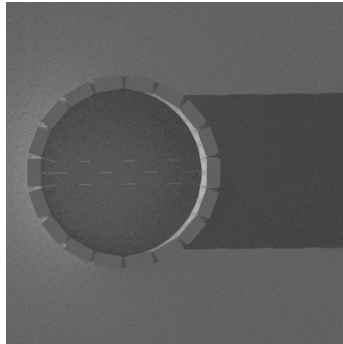
## DIGITAL STUDY OF CAVITY LEVEL

### LEVEL 1



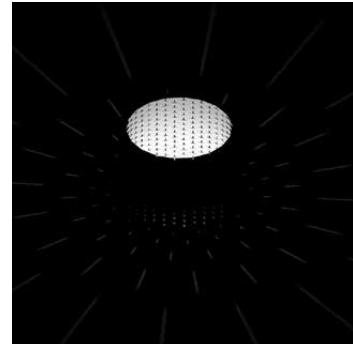
#### 8% GAP

Brick lantern with small gap between the bricks. 8% of the surface is open.



#### SHADOWS

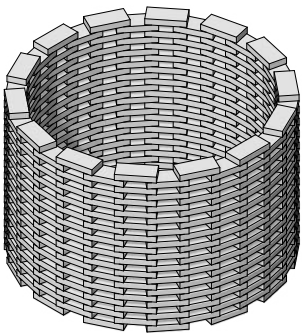
Day time, west low light. Inside shadows create slim lines of light. No light pattern outside.



#### LANTERN

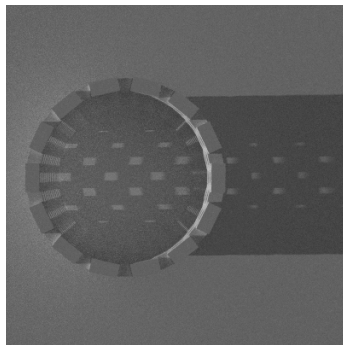
Night time. Bright inside light, slim lines of light outside.

### LEVEL 2



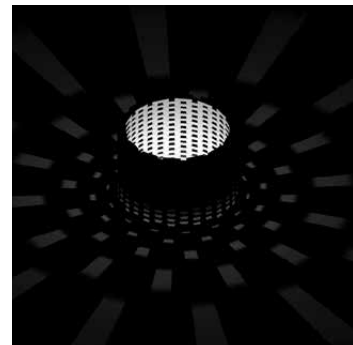
#### 25% GAP

Brick lantern with large gaps between the bricks. 25% of the surface is open.



#### SHADOWS

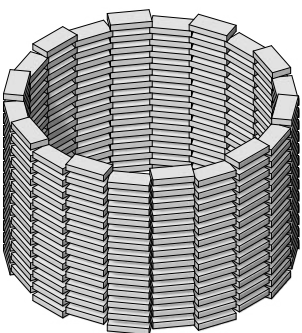
Day time, west low light. Inside shadows create large squares of light. Outside are smaller squares.



#### LANTERN

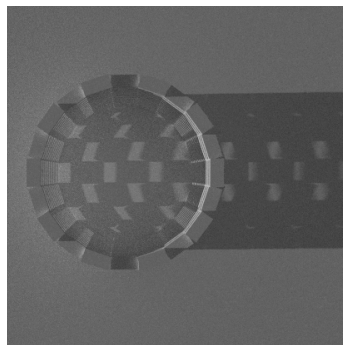
Night time. Bright inside light, squares of light outside.

### LEVEL 3



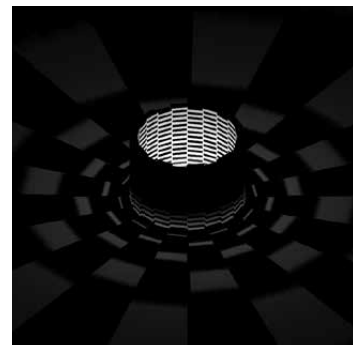
#### 56% GAP

Brick lantern with very large gaps between the bricks. 56% of the surface is open.



#### SHADOWS

Day time, west low light. Inside shadows create very large squares of light. Fewer squares outside.



#### LANTERN

Night time. Bright inside light, rectangles of light outside.

# DAY & NIGHT

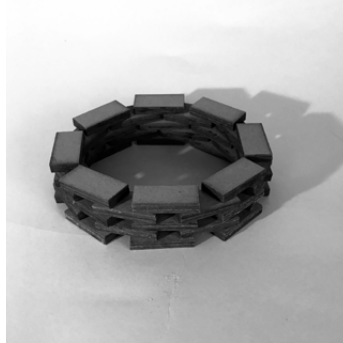
## MODEL STUDY OF CAVITY LEVEL

### LEVEL 1



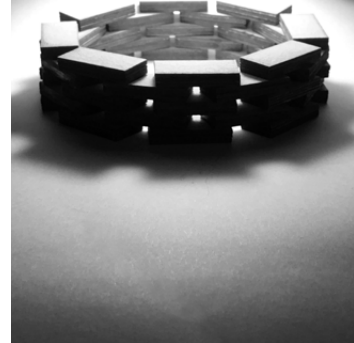
#### 8% GAP

Lantern with 5 layers of bricks. 8% of the surface is open.



#### SHADOWS

Day time. Light from south west. Light pattern with small light dots.



#### LANTERN

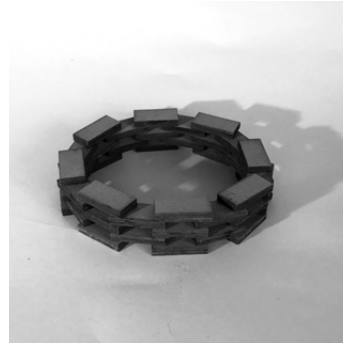
Night time, light from inside. Light pattern on outside not visible.

### LEVEL 2



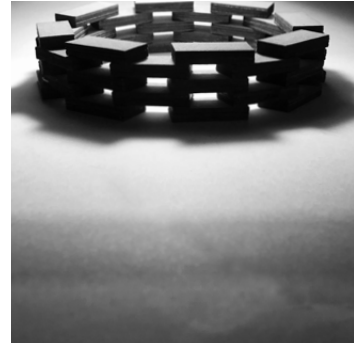
#### 25% GAP

Lantern with 5 layers of bricks. 25% of the surface is open.



#### SHADOWS

Day time. Light from south west. Light pattern with squares in different sizes.



#### LANTERN

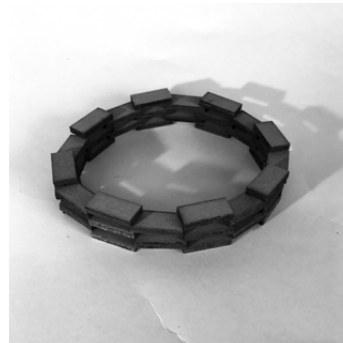
Night time, light from inside. Light pattern of smaller dots on the outside.

### LEVEL 3



#### 56% GAP

Lantern with 5 layers of bricks. 56% of the surface is open.



#### SHADOWS

Day time. Light from south west. Light pattern in rectangular shapes.



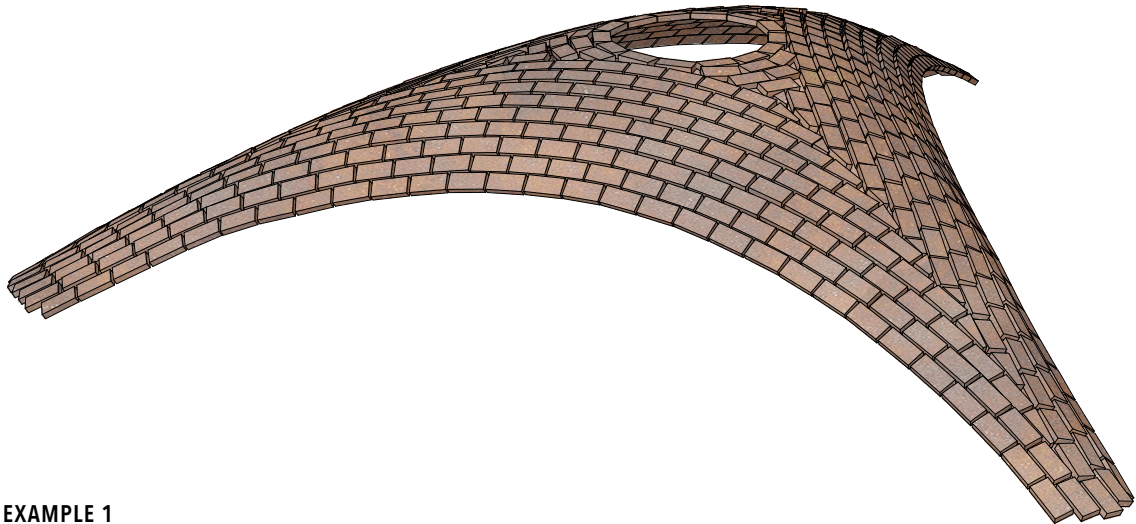
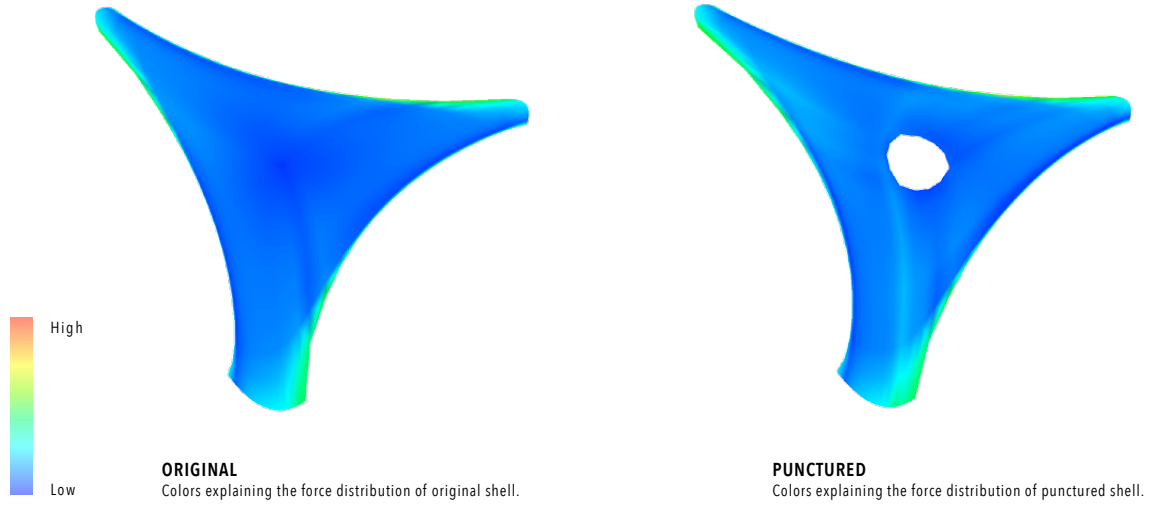
#### LANTERN

Night time, light from inside. Light pattern of larger squares on the outside.

# PUNCTURED COMPRESSION

## SHELL STRUCTURE WITH HOLES - EXAMPLE 1

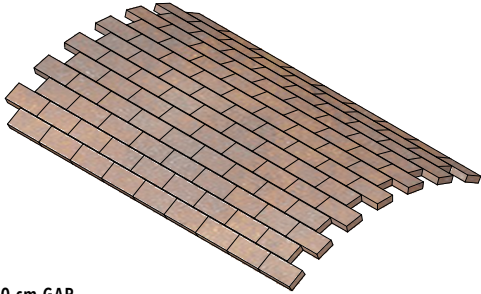
### FORCE DIAGRAM



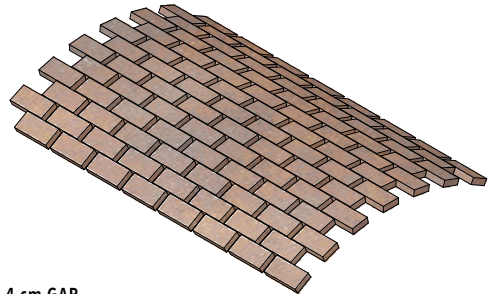
### EXAMPLE 1

# PUNCTURED COMPRESSION

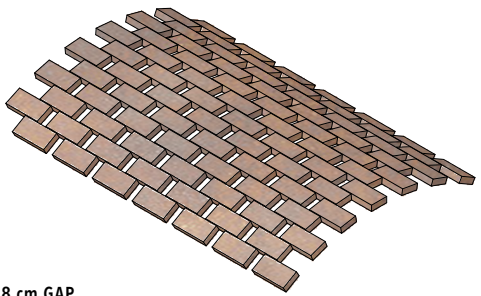
## SHELL STRUCTURE WITH HOLES - EXAMPLE 2



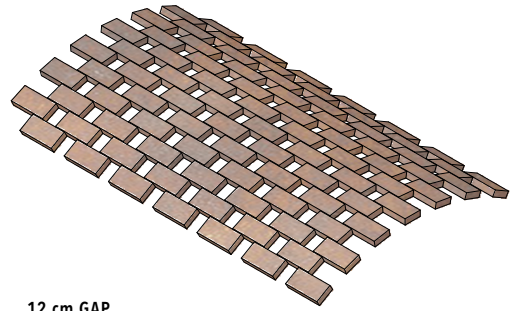
**0 cm GAP**  
All bricks put together, no light pattern, strong structure.



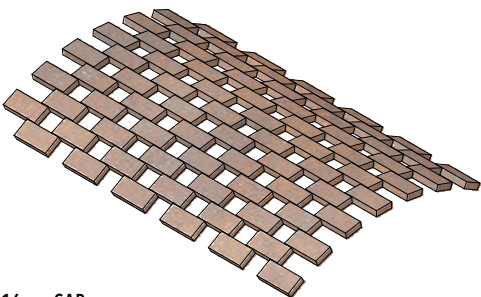
**4 cm GAP**  
Small gap between the bricks, slim light pattern, quite strong structure.



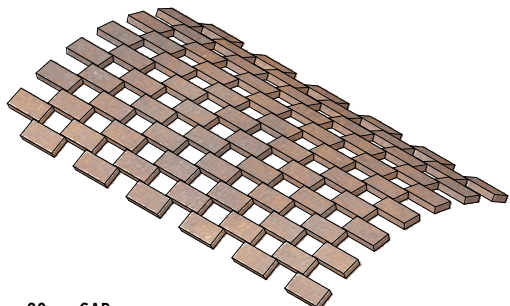
**8 cm GAP**  
Large gap between the bricks, wide light pattern, quite weak structure.



**12 cm GAP**  
Large gap between the bricks, wide light pattern, quite weak structure.



**16 cm GAP**  
Larger gap between the bricks, bright light pattern, weak structure.



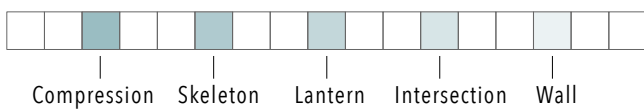
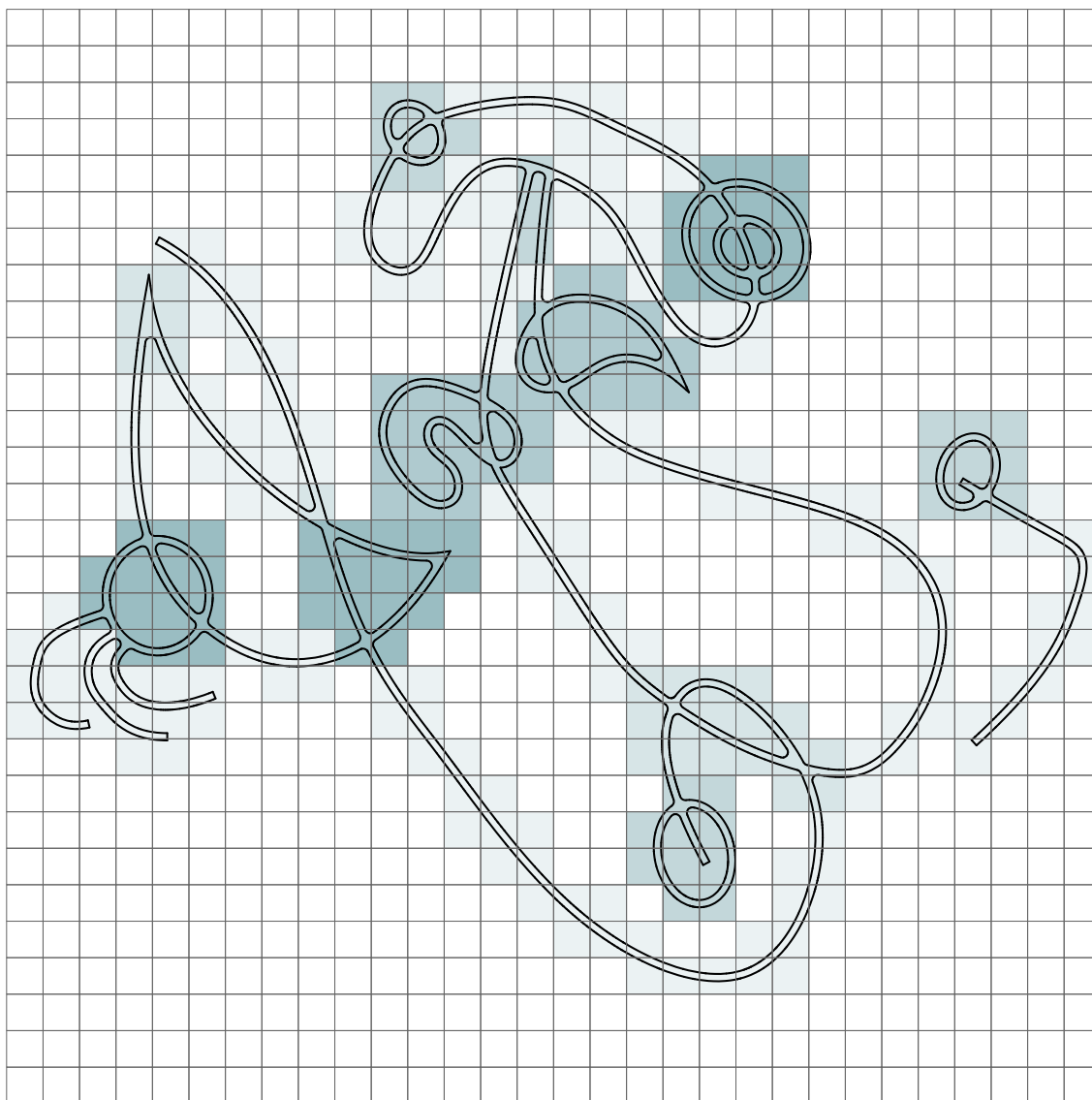
**20 cm GAP**  
Larger gap between the bricks, bright light pattern, very weak structure.

## COMPONENTS

# METHOD MAPPING

## DISTRIBUTION OF BRICK TECHNIQUES ON PLATFORM

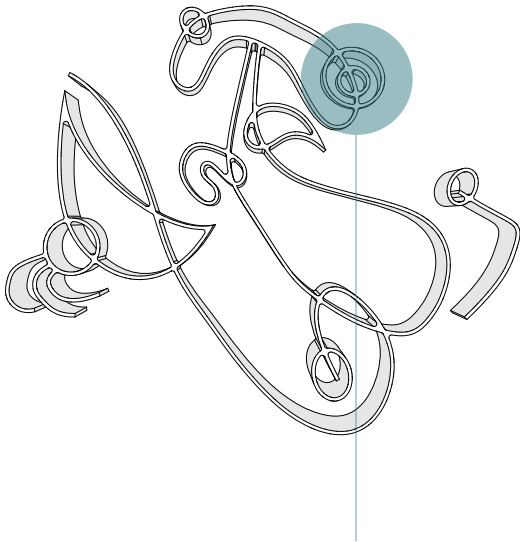
### PLATFORM - Extruded artwork



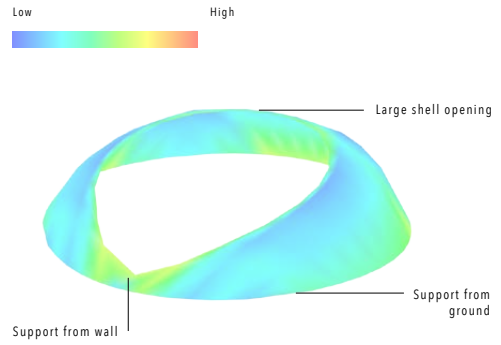
# ELEMENTS

## 1 - SCENE BY SHELL IN COMPRESSION

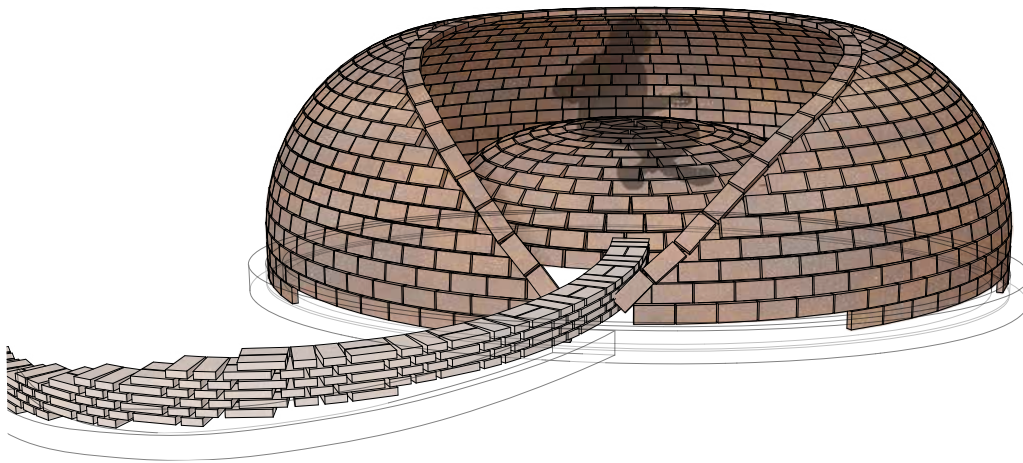
PLATFORM - Extruded artwork



FORCE DIAGRAM OF SYSTEM CONCEPT



Open shell structure using brick wall as additional support.



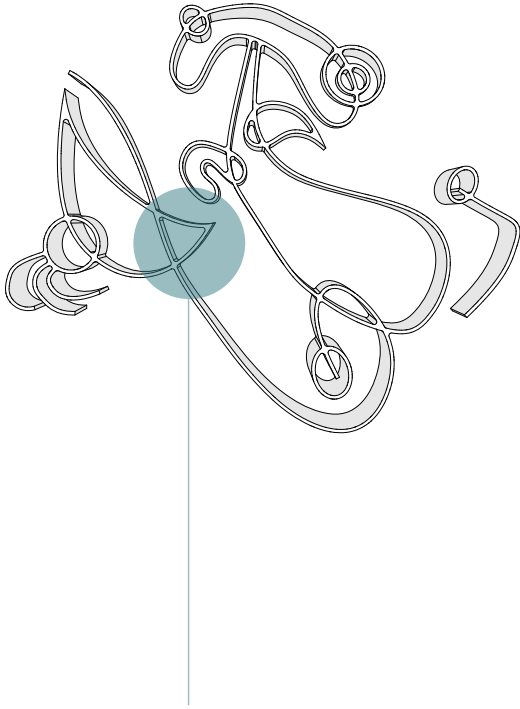
TRANSLATION 1



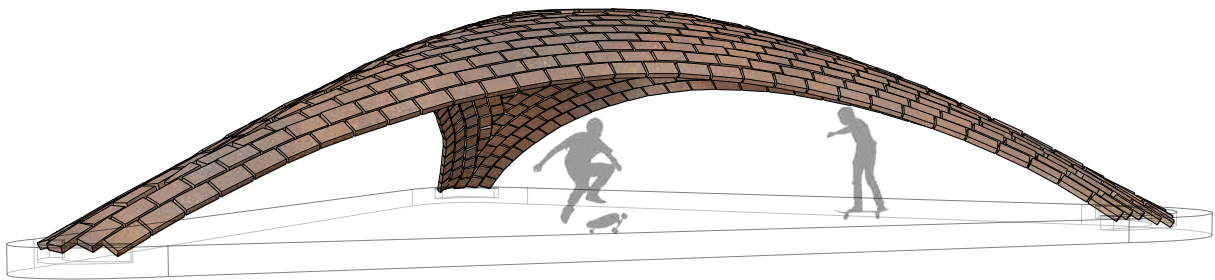
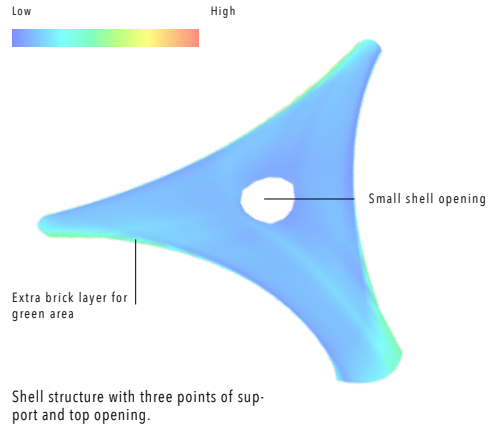
# ELEMENTS

## 2 - ROOF BY SHELL IN COMPRESSION

PLATFORM - Extruded artwork



FORCE DIAGRAM OF SYSTEM CONCEPT

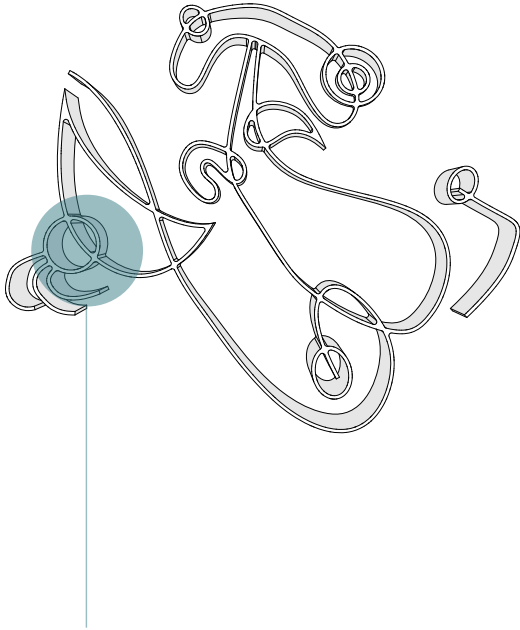


TRANSLATION 2

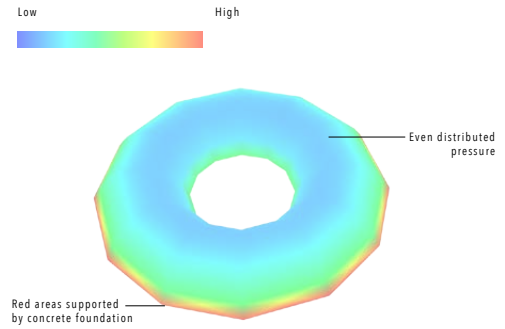
# ELEMENTS

## 3 - SEATING BY SHELL IN COMPRESSION

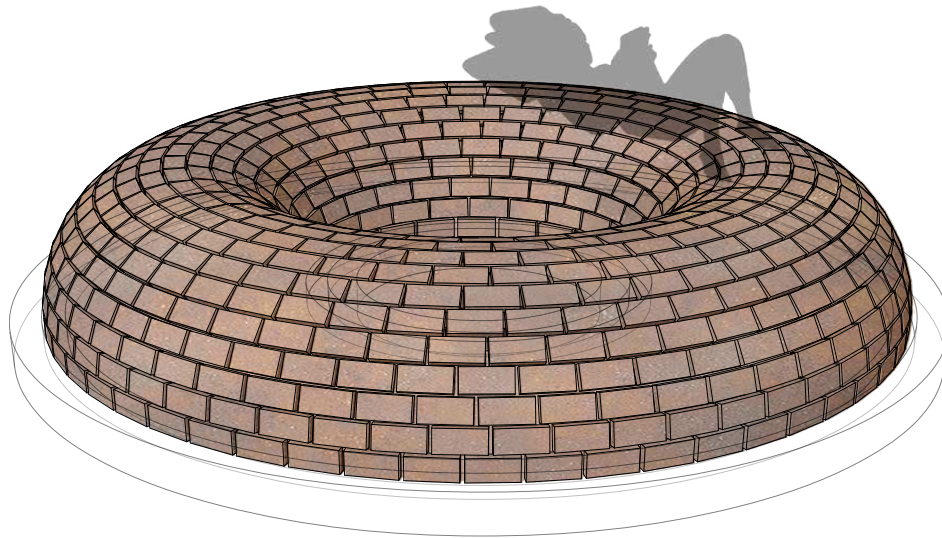
PLATFORM - Extruded artwork



FORCE DIAGRAM OF SYSTEM CONCEPT



Doughnut shaped shell using two circles of ground support, outer and inner layer.

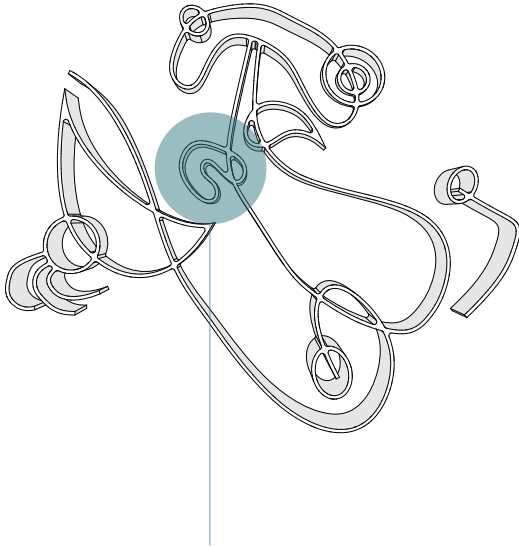


TRANSLATION 2

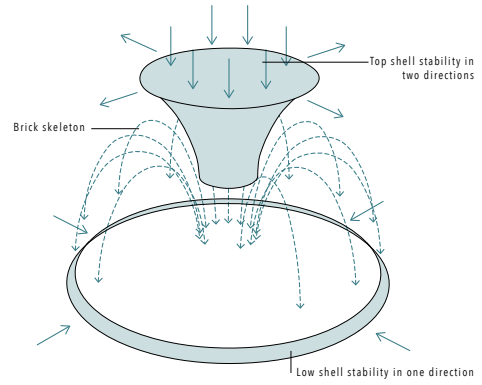
# ELEMENTS

## 4 - PAVILION USING BRICK SKELETON & SHELL

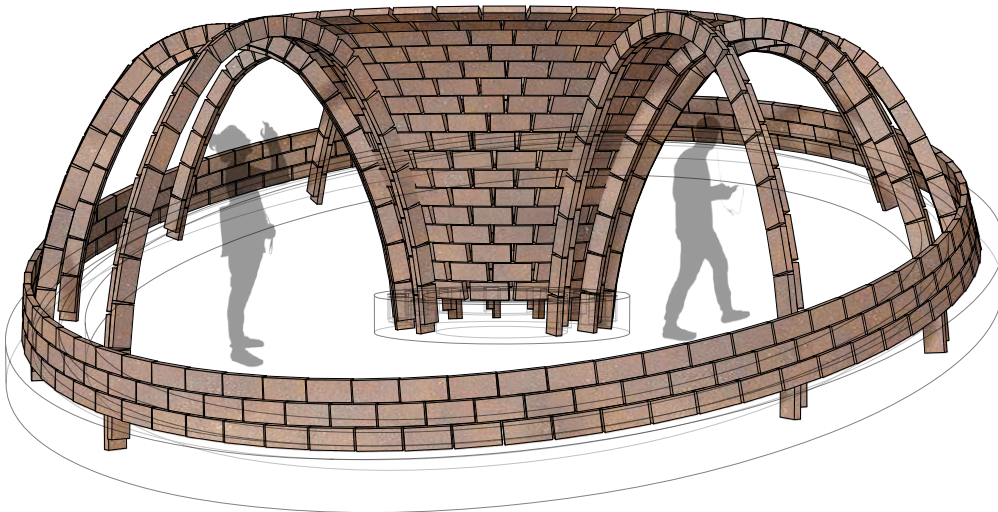
### PLATFORM - Extruded artwork



### FORCE LINES EXPLAINING SYSTEM CONCEPT



Skeleton system of arches supported by a top shell adding pressure in two directions and lower shell in one direction.

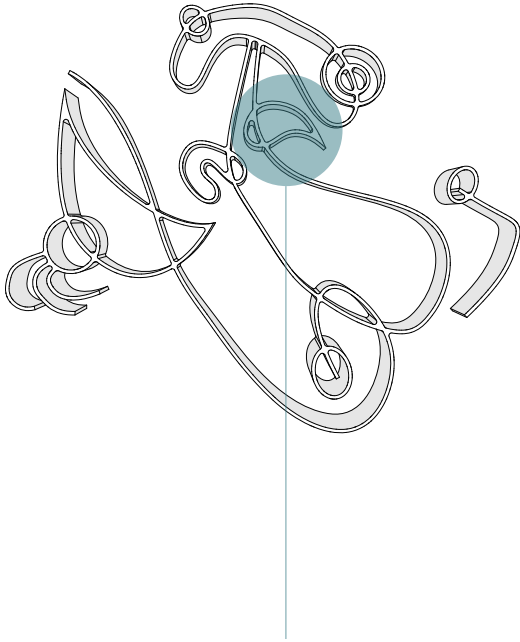


### TRANSLATION 4

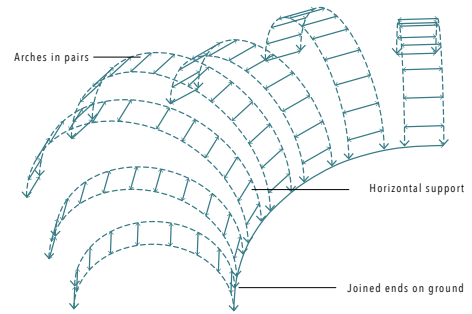
# ELEMENTS

## 5 - PAVILION USING JOINED BRICK ARCHES

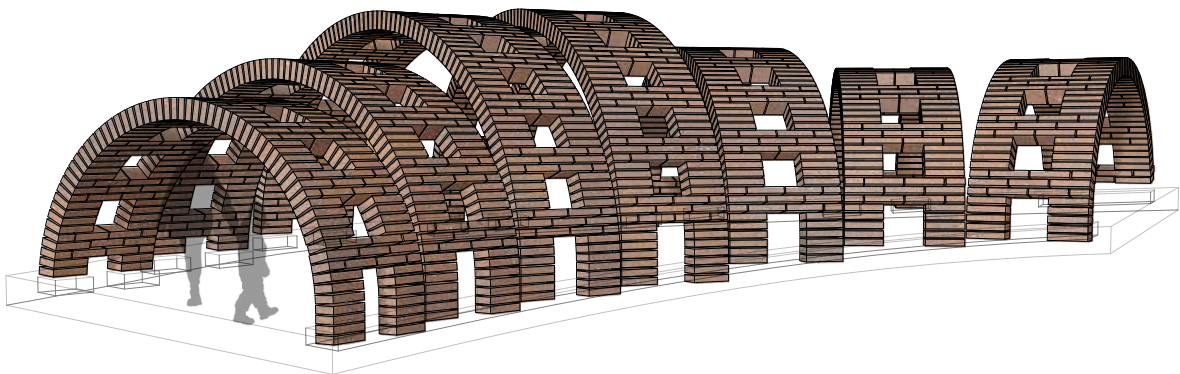
PLATFORM - Extruded artwork



FORCE ARROWS EXPLAINING SYSTEM CONCEPT



Skeleton system of arches joined in pairs by horizontal bond and connected on one side.

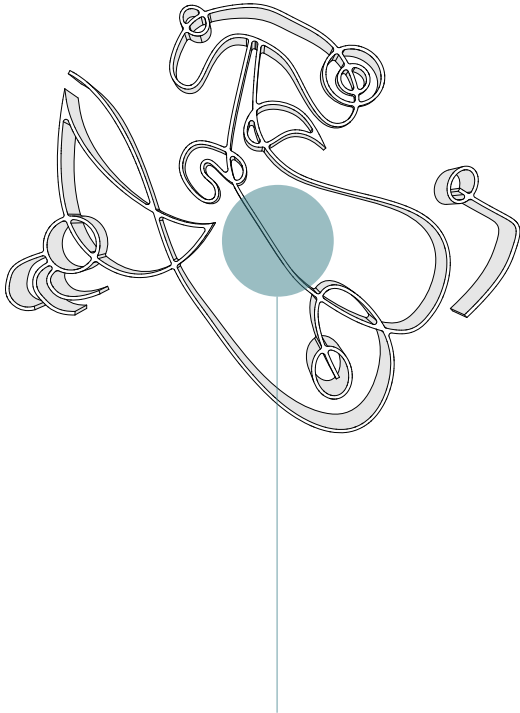


TRANSLATION 5

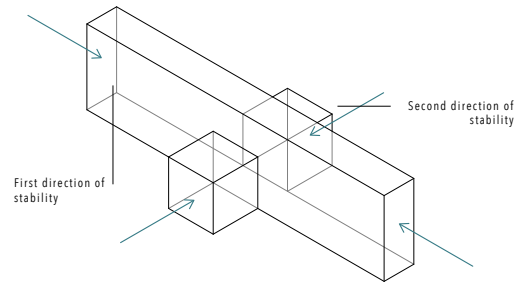
# ELEMENTS

## 6 - SEATING BY SUPPORTING STRAIGHT WALL

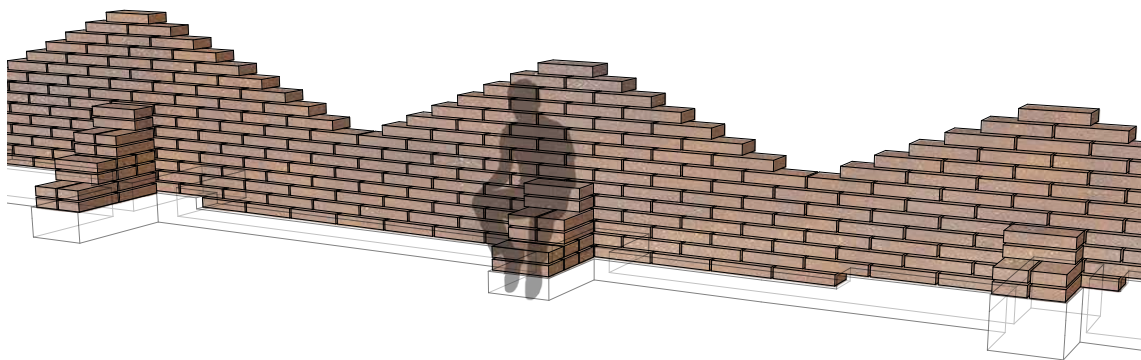
### PLATFORM - Extruded artwork



### FORCE ARROWS EXPLAINING SYSTEM CONCEPT



Straight wall supported for possible wind force by using seating platforms on both sides.

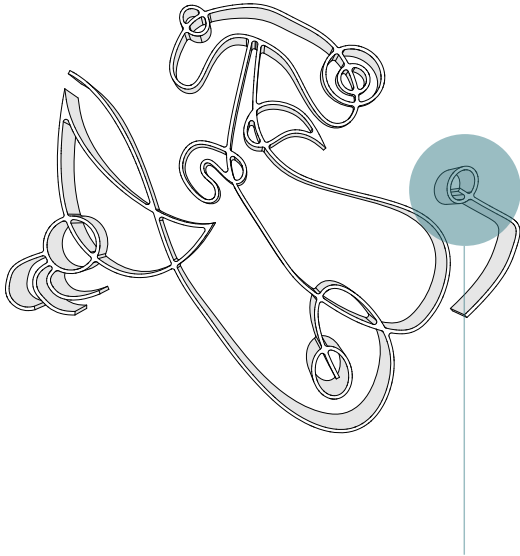


### TRANSLATION 6

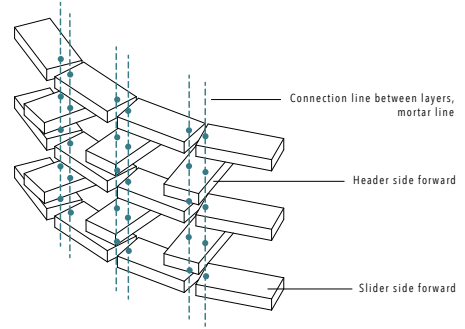
# ELEMENTS

## 7 - LANTERN BY BRICKS FACING DIFFERENT DIRECTIONS

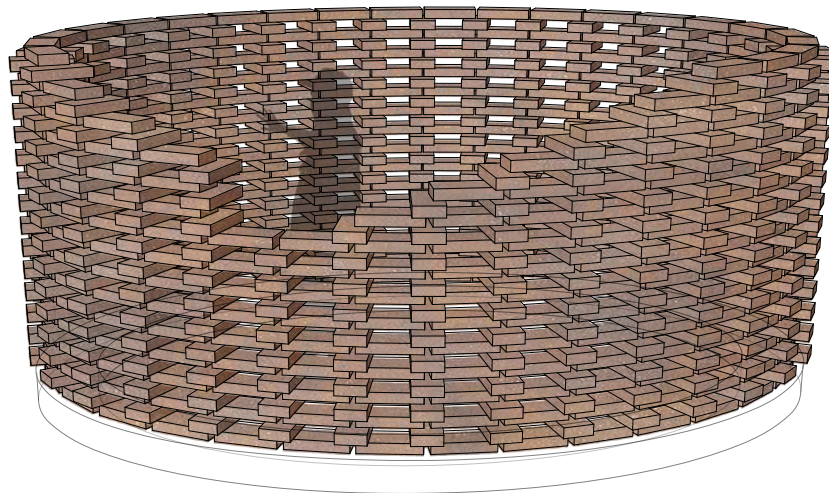
PLATFORM - Extruded artwork



STRUCTURE PATTERN OF SYSTEM CONCEPT



Oval lantern with generous gaps, layers with brick facing two directions

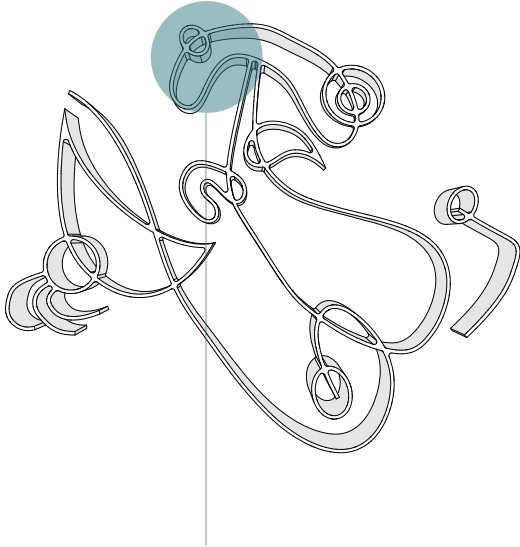


TRANSLATION 7

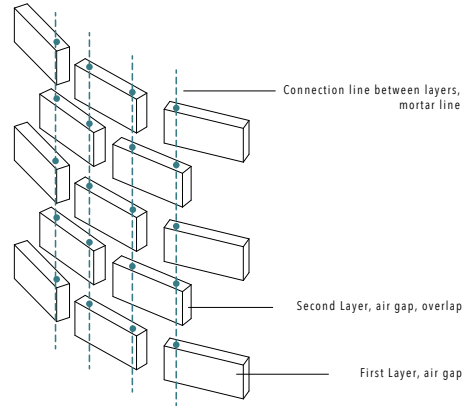
# ELEMENTS

## 8 - LANTERN BY SEPARATED BRICKS

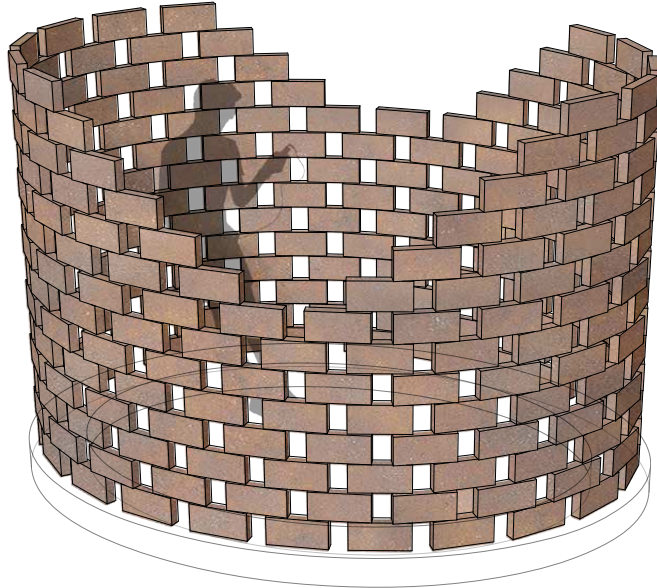
PLATFORM - Extruded artwork



STRUCTURE PATTERN OF SYSTEM CONCEPT



Oval lantern with generous gaps, bricks with shinder side facing forward.

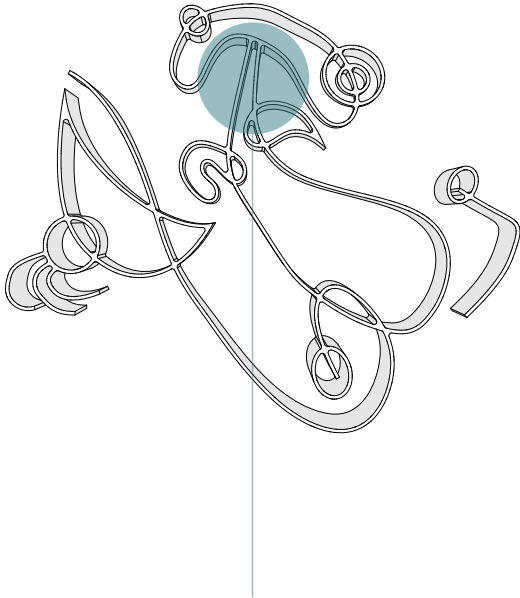


TRANSLATION 8

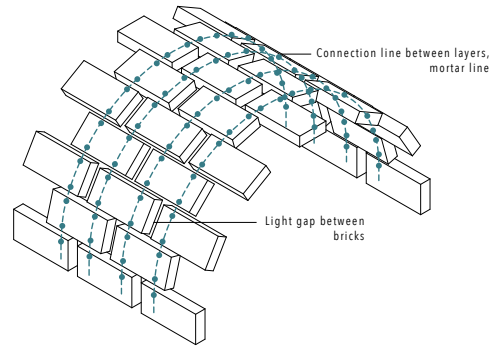
# ELEMENTS

## 9 - PORTAL BY VAULTED BRICK ROOF

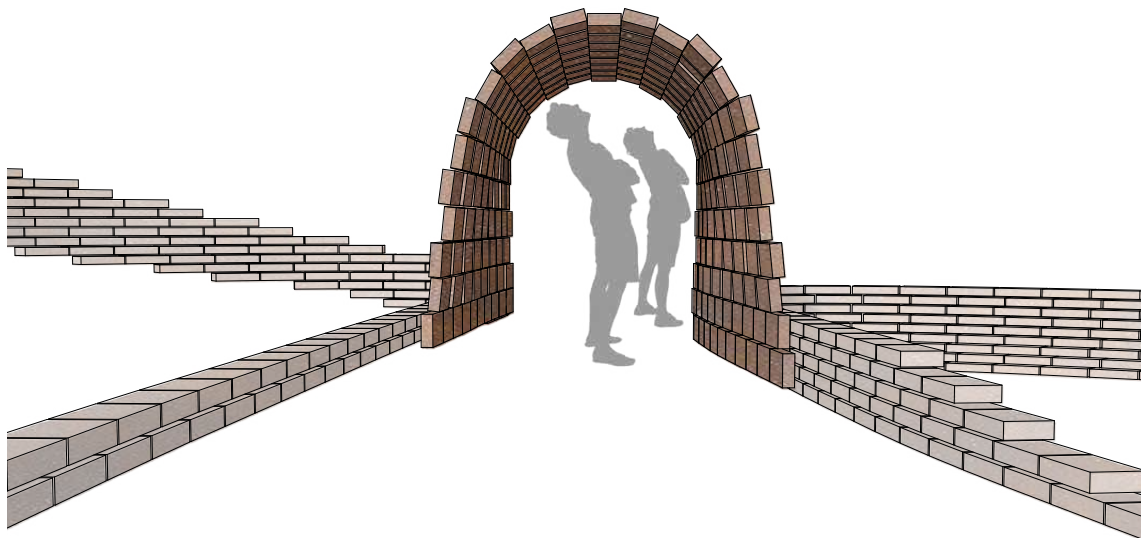
PLATFORM - Extruded artwork



STRUCTURE PATTERN OF SYSTEM CONCEPT



Using method of catalan vaulted roof to create brick portal. Alternative support using reinforcement.



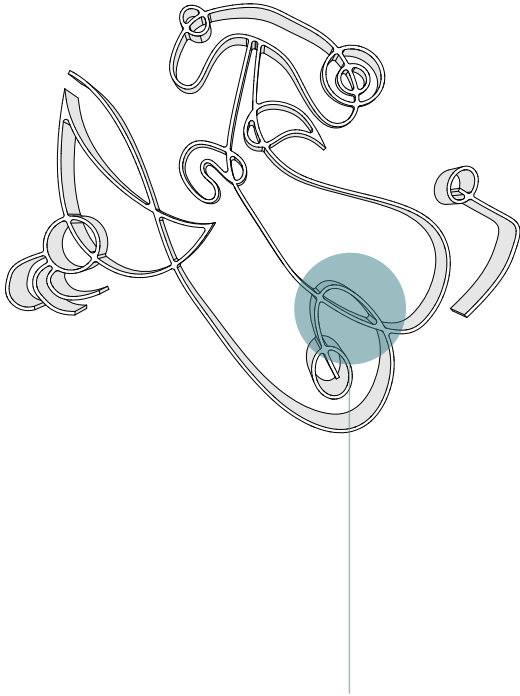
TRANSLATION 9



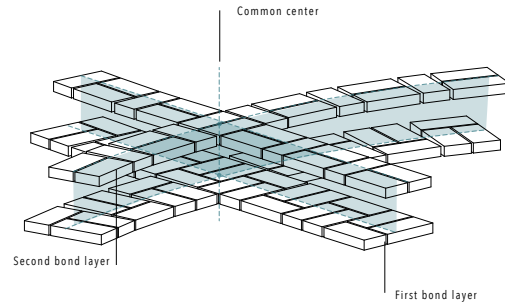
# ELEMENTS

## 10 - INTERSECTION BY DIFFERENT BOND WIDTH

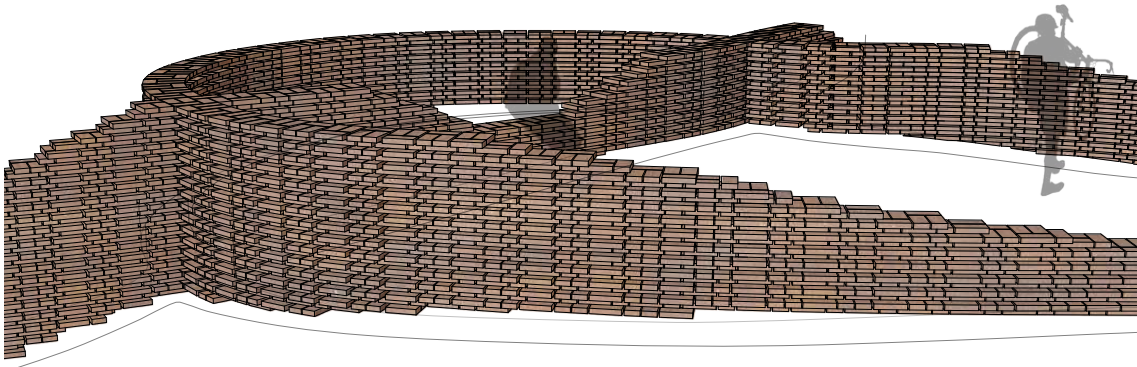
### PLATFORM - Extruded artwork



### BOND EXPLANATION OF SYSTEM CONCEPT



Use of different bond widths to create intersections with overlapping mortar pattern

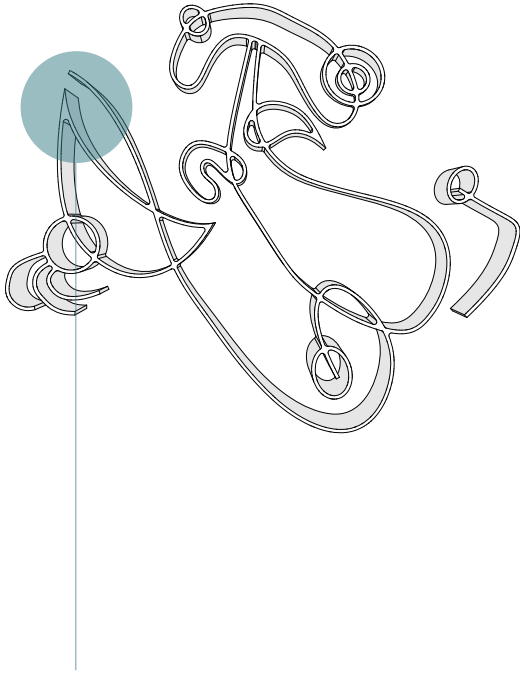


### TRANSLATION 10

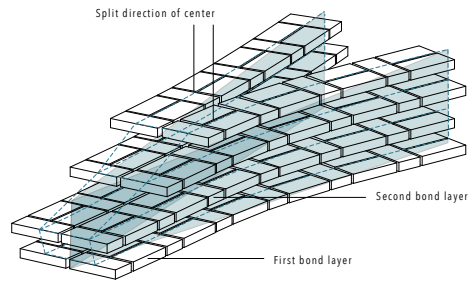
# ELEMENTS

## 11 - INTERSECTION BY SPLIT OF BOND

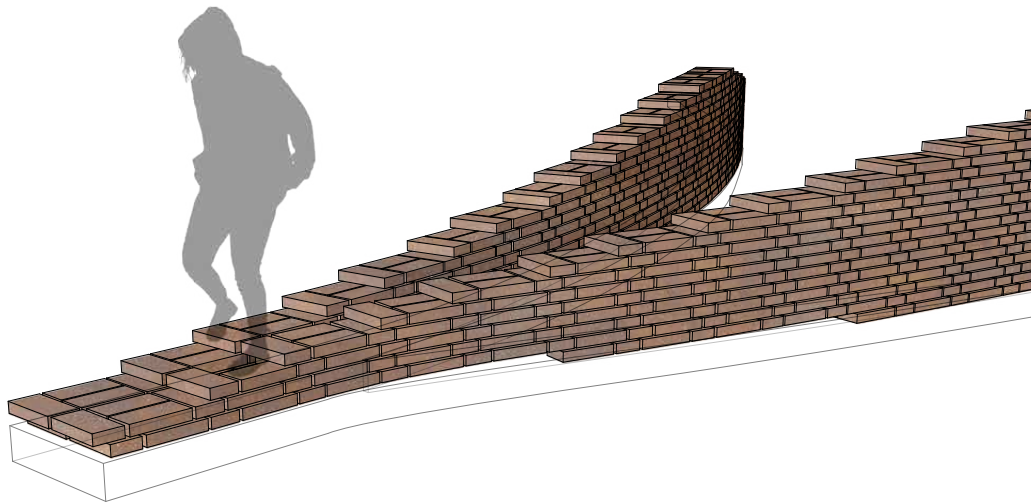
### PLATFORM - Extruded artwork



### BOND EXPLANATION OF SYSTEM CONCEPT



Use of angle increase to split one wall into two walls

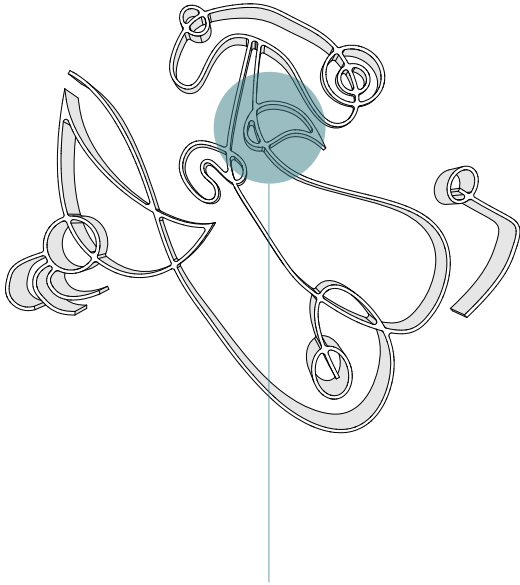


### TRANSLATION 11

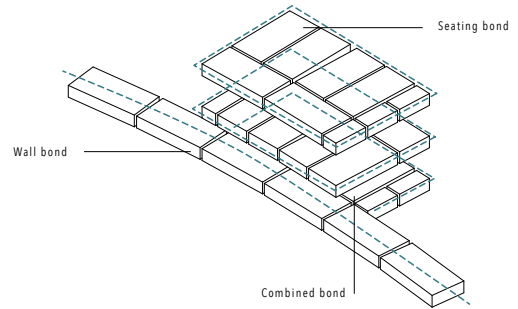
# ELEMENTS

## 12 - SEATING BY EXPANDING WALL BOND

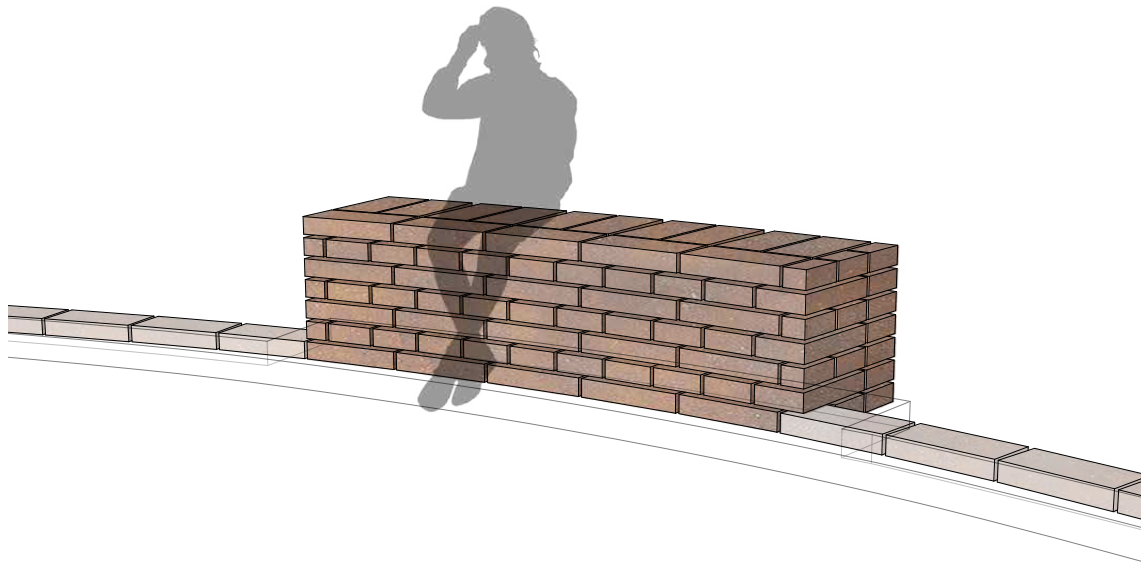
### PLATFORM - Extruded artwork



### BOND EXPLANATION OF SYSTEM CONCEPT



Creating seating platforms by integrating a wider bond with a brick wall bond. Generates additional stability

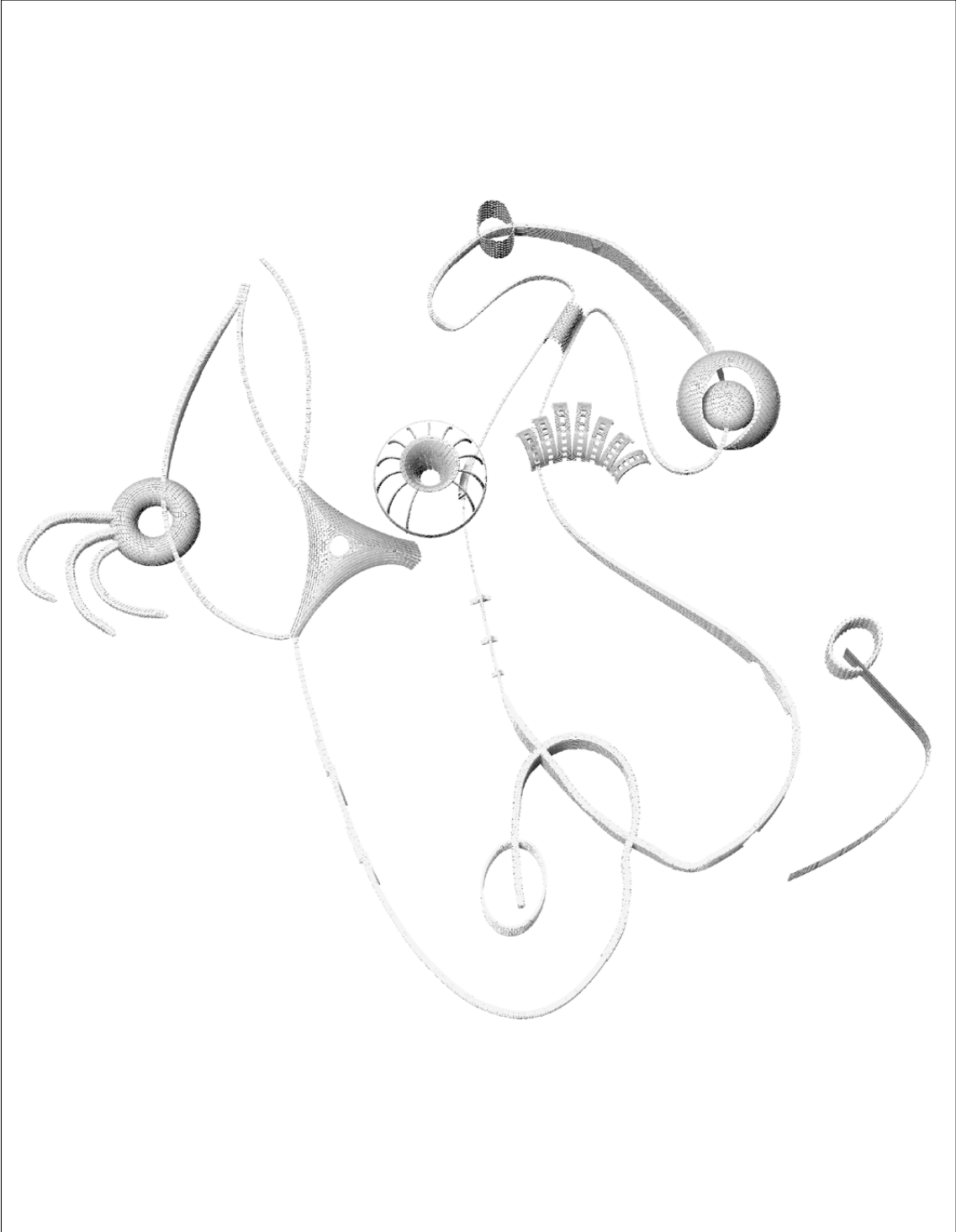


### TRANSLATION 12

MEMORIAL PARK

# OVERVIEW

## BRICK LANDSCAPE TOPOGRAPHY



# SITUATIONS

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1

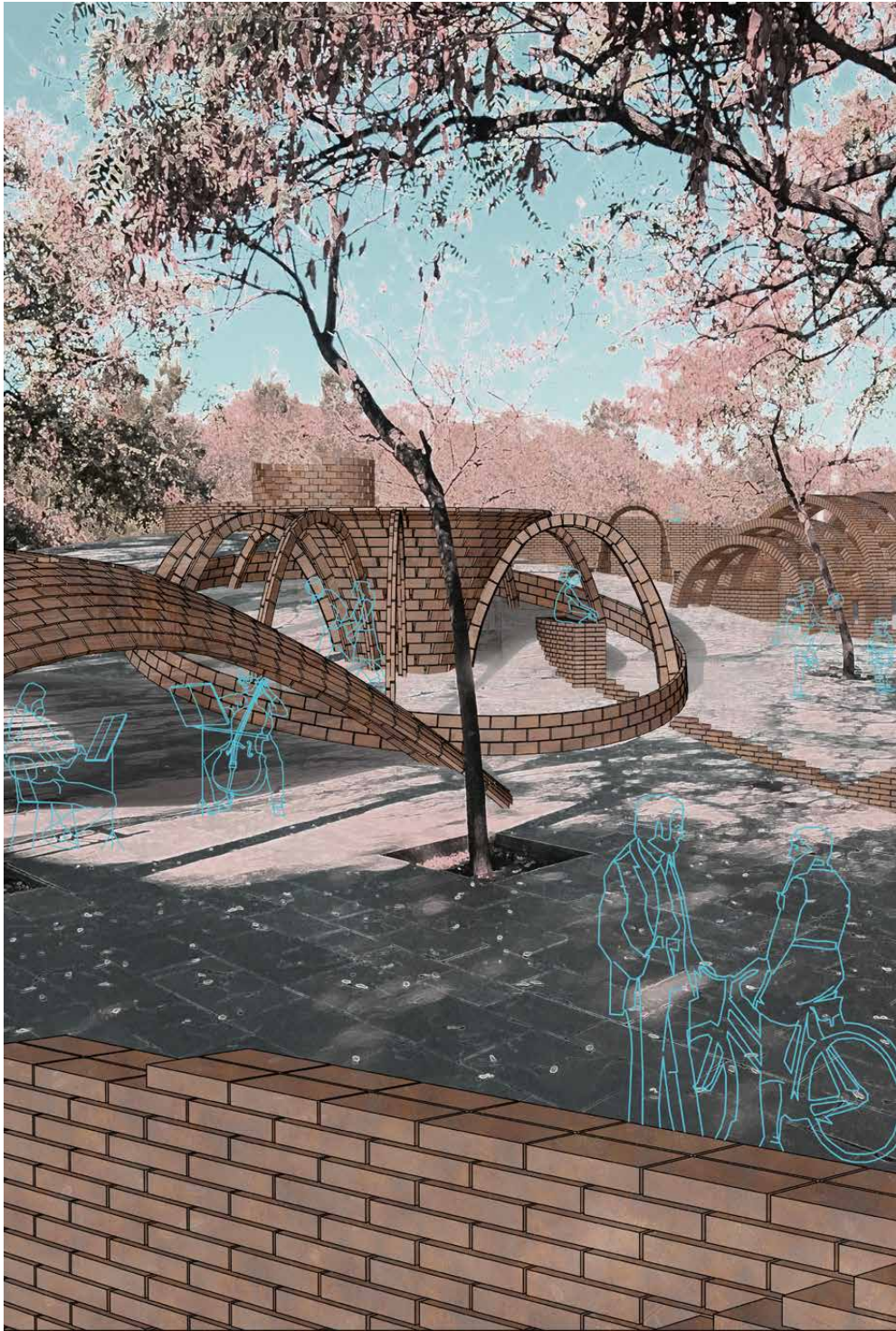


Relatives Gathering, Sunday at 14.48

# SITUATIONS

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2



Weekend Activities, Saturday at 12.53

# SITUATIONS

---

3



Sunny Afternoon, Thursday at 17.32



# SITUATIONS

---

4



Morning Coffee in the Shadows, Tuesday at 09.42

# SITUATIONS

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5



Taking a Short Cut, Wednesday at 16.29

# SITUATIONS

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6



Boule with Friends, Monday at 18.14

## EPILOGUE

## REFLECTION & CONCLUSIONS

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### HISTORY OF CATALAN INDEPENDENCE MEMORIAL PARK

Working with a political charged topic about a culture other than one's own was quite tough in the beginning. It took a long time just to get the facts straight and everyone had strong opinions, even people without any actual facts. Although, one thing that struck me was that as the project moved on so did the primary focus. Quickly the topic changed to bricks in general and the discussions turned more technical.

It has been fascinating talking to people about culture and very interesting to scrutinize old building techniques. During the research these two sides of the story merged more and more, which enriched the research and strengthened my initial argument. To work very technically with structural brick formations on a platform based on paintings and traditions pushed me towards a deeper understanding of catalan culture and catalan building techniques. This research mainly focused on that specifically, still it resulted in a finished project - the creation of History of Catalan Independence Memorial Park.

What makes this park a memorial for the history of catalan independence and in honor of the catalan people and culture? It's the combination of using old building techniques on a platform based on art and tradition on a site of historical importance to create a park usable in a manner that reflect both the catalan lifestyle and mindset.

So to conclude; yes, it is possible to change one piece of brick with an entire culture.

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- Sala, M. & Posner, R. (2017). *Catalan Language*. [www.britannica.com/topic/Catalan-language](http://www.britannica.com/topic/Catalan-language)

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### #2

Simon Harris, [www.barcelonas.com/about-barcelona-travel.html](http://www.barcelonas.com/about-barcelona-travel.html), 2018-05-29

### #3

Kate Osmond, [www.instagram.com/p/BefmHL7jdpd1xA2CznI6HHkIT-IFy6IGmcGJI0/?taken-by=katejosmond](https://www.instagram.com/p/BefmHL7jdpd1xA2CznI6HHkIT-IFy6IGmcGJI0/?taken-by=katejosmond), 2018-02-27

### #4

Roberto Corella, [www.flickr.com/photos/rcordella/3086709301/](https://www.flickr.com/photos/rcordella/3086709301/), 2018-05-29

### #5

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A big thanks to

Peter Chrsitensson, Morten Lund, Karl-Gunnar Olsson, Emil Adiels, professors and fellow students at ETSAV, Simon Harris, MSS colleagues, friends and family

for att help and suppot druing this project.



**CHALMERS**  
UNIVERSITY OF TECHNOLOGY