Presentation content:

I. Introduction

II. Research

III. Proposal
I. Introduction

II. Research

III. Proposal
Parthenon

Piazza Navona

Colosseum

....... 'n' many more.....
Papal Arsenal
I. Introduction

II. Research

III. Proposal
• Historically the site was 'outside' city bounds- Countryside, Farmland

XVII- XVIII C. AD
4 Faces of Papal Arsenal
• Porta Portese built in 1644

• Papal Arsenal built in 1714

The Historic Site
• Bike Shops

• Derelict structures

The Informal Site
• Weekly Porta Portese Flea Market since 1945

The Temporal Site
• Close proximity

• No connection

The Riverside site
The city turned away from the Tiber, after the erection of the Aurelian Walls in the 3rd century AD, so it is not surprising that the original harbours and shipping facilities have disappeared. The Tiber has become a blank zone within the city.

Throughout the history of Rome, the Tiber was one of the busiest spaces in the city, a bustling space and a source of water and raw materials. The embankments were raised.

On the Tiberinsular side, the walls are still present - it may be assumed these were part of the train station complex, some of the entrances are still in use.

Arsenale Pontificio; built in 1714, by pope Clement XI, was intended for the maintenance of river boats and barges, it was positioned just outside city walls (Janiculum). Prior to the erection of the edifice the location was a rural area outside the city used for agriculture. The edifice itself is 2 aisle accessible with a double Gothic arch and gable roof, which is highly atypical of Roman architecture.

After WW II the arsenale had been occupied by the building materials trade, and was in use for more than 50 years, until 2015 when the facilities moved.

During the restoration of Campo de’ Fiori (presently a fruit market) in 1650, Pope Urban VIII restored the location and added gates with his coat of arms at the top. The reason for the restoration is not known - as the shipping trade had been in decline, replaced by rail infrastructure.

Throughout the history of Rome, the Tiber was of great importance to the city, it was a bustling space and a source of water until the embankments were raised.

The city turned away from the Tiber, after the erection of the Aurelian Walls on both sides in 1876. All shipping and trading activities are disengaged. The Tiber has become a blank zone within the city.

The city turned away from the Tiber, after the erection of the Aurelian Walls on both sides in 1876. All shipping and trading activities are disengaged. The Tiber has become a blank zone within the city.

A weekly Porte Portese market known as ‘Mercato della Porta Portese’ began around 1945 (when the city was slowly recovering from WWII) and was the new home of a black market - formerly held in Campo de’ Fiori (presently a fruit market).

There seems to be a lack of information about the railway station in the Arsenale area, which is one of the main reasons for the development of the area. On the via Portuense side raised walls are still present - it may be assumed these were part of the train station complex, some of the entrances are still in use.

Via Portuense (Portuensis), one of the Roman ancient roads, that led to the Port, the town at the mouth of the Tiber near Ostia. At the present the area is of a particular typology, which could be called a shanty town; self-built sheds fabricated from corrugated aluminium, and currently used as bike and bicycle shops. It may be assumed that the unregulated self-built community gradually developed itself into a permanently established market.

A weekly Porte Portese market known as ‘Mercato della Porta Portese’ began around 1945 (when the city was slowly recovering from WWII) and was the new home of a black market - formerly held in Campo de’ Fiori (presently a fruit market).
Dominant axis - Via Portuense

Parallel to the road situated - Tiber river

Vertical disconnection/connection

Present Site Conditions
Reading existing form
as form in between

Approach to the site
Port of Ripa Grande
Tiberinus- god of Tiber, association w’ abundance and nourishment
Focal points

I. Tiber (water)

II. Productivity

III. Informality
I. Introduction

II. Research

III. Proposal
Core Axis
Introduction of Perpendicular routes
Stepping down to the Tiber
Public Building
Outdoor public space
Recessing into the ground
## Concept / Approach

<table>
<thead>
<tr>
<th>Site specific</th>
<th>Abstract</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historic Traces</td>
<td>Territory</td>
<td>Action / Effect</td>
</tr>
<tr>
<td>Square</td>
<td>Nature</td>
<td>Event</td>
</tr>
<tr>
<td>Embankment + Tiber</td>
<td>Architecture</td>
<td>Programme</td>
</tr>
</tbody>
</table>

**Space of work:** Harbour, Arsenal, New Customs House, Port of Ripa Grande.
Historic Traces/ Territory/ Action
Embankment/ Architecture/ Program
Program: Tiberinus Brewery

SAVE TIBER (WATER) DRINK BEER

CONSUMPTION.

LIQUID BREAD

BREWING PROCESS

REVERSE OSMOSIS
DIRTY WATER into 'HEMELSWATER'

carving into the embankments, introducing water.

TEVERE (TIBER)
Tiber (water) - catalyst of activity

Urban green

Water feature

Performance space

Economic growth

Educational and attraction

Sustainable approach

Papal Arsenal - bringing redundant sites into the city metabolism

Beer - as any other consumable, great driver in capitalist world
Porticus Aemilia (Horrea)
Porto di Rippeta
Water Dams
Theater of Marcellus, Rome
‘Water Theatre’
Tiberinus brewery, ROME
Where everything is?
50000mm

10-16 masl

Flooding period
(mostly during spring and autumn)

In case of an event
(independant of the tides)
In-Situ concrete foundations (including perimeter walls)

Construction sequence (foundations)
Precast concrete columns

Construction sequence (columns)
Precast concrete floors (hollow core) and precast concrete wall panels

Construction sequence (Level -3)
Precast concrete floors (hollow core) and precast concrete wall panels

Construction sequence (Level -2)
Precast concrete floors (hollow core) and precast concrete wall panels

Construction sequence (Level -1)
Construction sequence (Street Level)

In_Situ concrete roof construction
Construction sequence (Existing Structure)

- Precast concrete portals
- Reassembled existing portal structures
- Maintained Arsenal portals
Construction sequence (Dam Construction)

In_Situ concrete dam structure
Axometric detail: Front Facade; Scale 1:20/ 1:250
Tour through the Tiberinus Brewery

I. Entry to the site
II. Reception/Tap room
III. Descend to the Water Theater
IV. Water Theater
V. RO Chamber
VI. Brewery
VII. Urban Green/Hop Promenade
Axonometric view towards brewery
Aerial view towards the brewery
1. Sun/daylight falls on solar shingles. Solar panel within the tiles convert the energy into Direct Current electricity, which is sent to an inverter.

2. The inverter converts the Direct Current into Alternative Current electricity.

3. Excess electricity is sent to the utility company.

4. Solar energy system produce very high quality energy.

5. External electricity provided when required.

The excess is sent to the utility company.

Power from utility comp. when needed.

To the local utility company.

Integrated photovoltaics
Green roof advantages

- Acoustic insulation
- Metabolise particals
- CO₂ absorption
- Storm water management
- Thermal insulation
- Heat island reduction
- Roof longevity
- Quality of life/Urban agriculture

CO₂ H₂O
O₂
Metabolise particals
CO₂ absorption
Thermal insulation
Heat island reduction
Roof longevity
Quality of life/Urban agriculture
Tasting room
(perspective towards the Tiber)
Tasting room
(perspective towards entrance)
EAT (Earth Air Tunnel) ventilation

Earth_Air Tunnel Principle

Suitable for large 'n' industrial buildings
Utilizes capacity of earth
Non_Toxic
Suitable for dry climate
Passive ventilation
Low maintenance
Long life
Low operating costs

Sealed environment: mechanical ventilation, continuous and controlled
Descend to the 'Water Theatre'
Entrance to the Water Basin
Water ingression

Passed through cooling coils

Hot air current

Cooled water evaporates / cools the space

Water cooling = space cooling
Reverse Osmosis Chamber
Brewery (Brewhouse)
Brewery (vapour/heat recovery unit)
Perspective towards Arsenal edifice
Set of vignettes;
City: Descend into the ‘Water Theater’
Water recycling plant locations across the city
Thank you.