Reactivate Industrial Heritage

A reaction on a conference centre competition

Walter van Jaarsveld
RMIT MSc3 - MSc4
Graduation Studio
Sarajevo

Introduction - the situation - urban ensemble - conclusion

The assignment - the solution - building detail

* INTRODUCTION
* THE SITUATION
* THE ASSIGNMENT
* THE SOLUTION
* URBAN ENSEMBLE
* BUILDING DETAIL
* CONCLUSION
INTRODUCTION
‘MIT is concerned with the tension between preservation and renewal in architecture and construction.’

MIT semester manual (2013)
‘How do we design for a sustainable future’?

Elma Durmisevic (2013)
The graduation annotation covers both broader and deeper knowledge regarding Sustainable Development (SD) and technology.

Annotation TiSD (2014)
Planned construction of the Conference Center of Sarajevo with supporting facilities

Introduction

Novi-Grad Sarajevo

RMIT

Sarajevo Green Design

TiSD (Technology in Sustainable Development)

What is your contribution to a sustainable world?

City of Sarajevo

‘Planned construction of the Conference Center of Sarajevo with supporting facilities

Novi-Grad (2014)
INTRODUCTION

- INTRODUCTION
- THE SITUATION
- THE ASSIGNMENT
- THE SOLUTION
- URBAN
  - ENSEMBLE
  - DETAIL
- CONCLUSION
- The Location
- The Assignment
- The Design
  - Urban
  - Building
- Conclusion
The Location

- Location
- Development
- Characteristics region
POSITION SARAJEVO

- Introduction
- The situation
- Urban ensemble
- Conclusion

- The assignment
- Building detail
- Conclusion
URBAN DEVELOPMENT: OTTOMAN

**INTRODUCTION**

**THE SITUATION**

**THE ASSIGNMENT**

**THE SOLUTION**

**URBAN**

**ENSEMBLE**

**DETAIL**

**CONCLUSION**

**Ottoman development**

**Ambiance**

- Novi-Grad
- The location
- Dragon of Bosnia
- Ottoman
URBAN DEVELOPMENT: HABSBURG

HABSBURG DEVELOPMENT

Ambiance

- INTRODUCTION
- THE SITUATION
- THE ASSIGNMENT
- THE SOLUTION
- URBAN
- ENSEMBLE
- BUILDING
- DETAIL
- CONCLUSION
URBAN DEVELOPMENT: SOCIALISTIC

AERIAL VIEW

Socialistic development and illegal housing
URBAN CHARACTERISTICS

Illegal Housing
- Green
- Low rise illegal buildings
- Lack public functions

Industrial Zone
- Vacancy
- Low maintenance
- Renewal along main access

Socialistic Blocks
- High rise
- High Density
- Undefined green
- Lack public green functions

The location
CREATE PUBLIC ZONE

**PUBLIC ZONE**

**Illegal Housing**
- Green
- Low rise illegal buildings
- Lack public functions

**Industrial Zone**
- Vacancy
- Low maintenance
- Renewal along main access

**Socialistic Blocks**
- High rise
- High Density
- Undefined green
- Lack public functions
The Assignment

- Contextual research
- Zone research
- Plans municipality
- The location

17-79
CONTEXTUAL RESEARCH

- Introduction
- The Situation
- The Assignment
- The Solution
- Urban Ensembl
- Building Detail
- Conclusion
CONTEXTUAL RESEARCH

- Introduction
- The Situation
- The Assignment
- The Solution

- People flows
- Most inhabitants
- Physical border with public facilities

- Industrial zone
- Centre
  - Most "unique" functions
  - Relocate and copy functions

- Physical border public functions
CONCEPTUAL RESEARCH

Physical border with public facilities

Most inhabitants

Centre
Most 'unique' functions

Relocate and copy functions

Two public zones work together

Industrial zone

People flows

Physical border public functions

- Introduction - the situation - urban ensemble - conclusion

- The assignment - the solution - building detail - conclusion
**ZONE RESEARCH**

- **Introduction**
- **The Situation**
- **The Assignment**
- **The Solution**
- **Urban**
- **Ensemble**
- **Detail**
- **Conclusion**

- **People Flows**
- **Most Inhabitants**
- **Physical border with public facilities**

- **Centre**
  - **Most 'unique' functions**

- **Industrial Zone**
  - **Physical border public functions**
  - **Relocate and copy functions**

- **Existing market**
  - **Two public zones**
  - **Work together**
  - **Music facilities**
  - **Cinema classes**
  - **Yoga classes**
  - **Night life**
  - **Skate park**
  - **Region with horeca**
- Congress hall
- Press Centre
- Multi purpose room
- Hotel
- Shopping
- Sports
- Garage for 500 cars
- Square, a landscaped open space for about 2,000 people
- Outdoor functions
The proposed location

1. The steel factory: big sheds

2. The strict office site

3. Interior experience
The Solution

- Urban plan
- Building plan: Set-Up
- Ensemble plan
- Building plan:
- Details
CONCEPT URBAN PLAN

Networks

Connection transport and environment

Networks

Connection
CONCEPT URBAN PLAN

Networks

Connection transport and environment

Strict vs fluent

Networks

Connection

Urban grid
INTRODUCTION

THE SITUATION

THE ASSIGNMENT

THE SOLUTION

REFERENCES

CITY OF THE URBAN PLAN FUNCTIONS

- **Introduction**
- **The Situation**
- **The Assignment**
- **The Solution**
- **References**

**Urban Plan Functions**

Overview buildings

Reference science centre

Reference internal market

- Event storage
- Skate park
- Conference centre
- Public workshop spaces
- Theatre
- Tram station
- Hotel
- Bowling
- Flexible workspace
- Market
- Event storage
- Skate park
- Conference centre
- Public workshop spaces
- Theatre
- Tram station
- Hotel
- Bowling
- Flexible workspace
- Market

0 20 40 60
URBAN PLAN WATER STORAGE

- INTRODUCTION
- THE SITUATION
- THE ASSIGNMENT
- THE SOLUTION
- URBAN
- ENSEMBLE
- DETAIL
- CONCLUSION
URBAN PLAN AXIS

Extend existing parking

VIP parking

Tram stop

Green Parking

Overview axis

Left crane tracks

Right crane tracks (hanging volume)
URBAN PLAN CIRCULATION

- Introduction - The situation - Urban ensemble - Conclusion

- The assignment - The solution - Building detail

Flows people

Main direction flows

Conference community

Local community
SITUATION STEEL FACTORY

1: Front side
2: Back side
3: Left side
4: Left side
5: Left side

Ground floor plan

Crane tracks
Production track

- Introduction
- The Situation
- The Assignment
- The Solution
- Urban ensemble
- Building detail
- Conclusion
CONCEPT STEEL FACTORY

Relation volumes

Main direction flows
CONCEPT STEELFACTORY

Relation volumes

Connection and access

Relation volumes

Main direction flows

Connection and access

A- Section connection

B- Section connection
EXISTING SITUATION

1ST FLOOR PLAN TO BE DEMOLISHED

SECTION A: TO BE DEMOLISHED
new Situation additions

1st Floor plan to be build

Section A: To be build

* INTRODUCTION
* THE SITUATION
* THE ASSIGNMENT
* THE SOLUTION
* URBAN ENSEMBLE
* BUILDING DETAIL
* CONCLUSION
new Situation connection

- introduction
- the situation
- urban ensemble
- conclusion

- the assignment
- the solution
- building detail

1st Floor plan connection

Section A: connection
Section A: Functions and Circulation

1ST FLOOR PLAN FUNCTIONS AND CIRCULATION

2ND FLOOR PLAN FUNCTIONS AND CIRCULATION

- Introduction
- The Situation
- The Assignment
- The Solution
- Urban Ensemble
- Building
- Conclusion

FLEXIBLE SPACES LOCAL COMMUNITY

Lobby

Flexible Conference Halls

Backstage

Sport Hall/Conference Hall

Fitness

Meeting Rooms

Restaurant

Flexible Spaces Local Community

Community Lounge

Conference Hall

Backstage

Sport Hall/Conference Hall

Fitness

Meeting Rooms

Restaurant/Lounge

Press Room

Bar/Kitchen/Café

Sanitary Facilities

Technical Room
New Situation Functions and circulation

- Flexible spaces local community
- Lobby
- Flexible conference halls
- Backstage
- Sport hall/conference hall
- Fitness
- Meeting rooms
- Restaurant
- Flexible spaces local community
- Lounge
- Sport hall/conference hall
- Bar/Kitchen/Café
- Sanitary facilities
- Technical room

1st Floor plan functions and circulation
2nd Floor plan functions and circulation

Section A: Functions and circulation
New Situation Functions and circulation

- Flexible spaces local community
- Lobby
- Flexible conference halls
- Backstage
- Sport hall/conference hall
- Fitness
- Meeting rooms
- Restaurant
- Flexible spaces local community
- Community lounge
- Sport hall/conference hall
- Meeting rooms
- Restaurant/lounge
- Press room
- Bar/Kitchen/Café
- Sanitary facilities
- Technical room

1st Floor plan functions and circulation

2nd Floor plan functions and circulation

Section A: functions and circulation
New Situation Functions and circulation

**Section A: Functions and circulation**

- Introduction
- The situation
- The assignment
- The solution
- Urban ensemble
- Building detail
- Conclusion

**1st Floor plan functions and circulation**

- Flexible spaces local community
- Lobby
- Flexible conference halls
- Backstage
- Sport hall/conference hall
- Fitness
- Meeting rooms
- Restaurant/lounge
- Press room
- Bar/Kitchen/Café
- Sanitary facilities
- Technical room

**2nd Floor plan functions and circulation**
New Situation Functions and Circulation

1st Floor Plan Functions and Circulation

2nd Floor Plan Functions and Circulation

Section A: Functions and Circulation
NEW SITUATION ENSEMBLE

1ST FLOOR PLAN ENSEMBLE SITUATION

SECTION A: ENSEMBLE SITUATION
Energy in Building

Distribution by floor heating and ventilation system

Cooling: Summer situation

Section C: Heating: Winter situation

Warm aquifer in park
Cold aquifer in park

Pipics running outdoor

Patio used for ventilation + additional heating

Pv Cells + Green roof

Pv Cells

FLOOR HEATING

INTRODUCTION • THE SITUATION • THE ASSIGNMENT • THE SOLUTION • URBAN ENSEMBLE • BUILDING DETAIL • CONCLUSION
The plot
Steel recycling
Stimulate local economy
Glass production
Concrete recycling
Reuse scheme

1. Use materials site
2. Recycle materials
3. Recycle materials vacant buildings

Reuse scheme

- Introduction - the situation - urban ensemble - conclusion
- The assignment - the solution - building detail
3D construction additions

- Introduction
- The situation
- Urban ensemble
- Conclusion

- The assignment
- The solution
- Building detail

- Introduction
- The situation
- The assignment
- The solution
- Urban ensemble
- Building detail
- Conclusion
Fitness centre
Dressing rooms +
Sport hall
Lobby
Lounge +
Press room

- Introduction - The Situation - Urban Ensemble - Conclusion
- The Assignment - The Solution - Building Detail
3D SECTION WEST SIDE

- Restaurant
- Meeting Rooms
- Lobby
- Conference Hall
- Public Facilities
PUBLIC FACILITIES

Section A: Public facilities scaled from 1:50

LOCATION

Section A
PUBLIC FACILITIES

Section A: Public facilities scaled from 1:50

Impression new situation

Impression old situation

Location

Main materials
3D SECTION WEST SIDE

- Introduction
  - The situation
  - Urban ensemble
- The assignment
  - The solution
- Building detail
- Conclusion

Restaurant
Meeting rooms
Lobby
Conference hall
Public facilities
Section B: Lobby

LOCATION

- INTRODUCTION
- THE SITUATION
- THE ASSIGNMENT
- THE SOLUTION
- URBAN
- ENSEMBLE
- BUILDING
- DETAIL
- CONCLUSION
Section B: Lobby

Impression New Situation

Impression Old Situation

Main Materials

LOCATION

Section B

LOBBY

- Introduction
- The Situation
- The Assignment
- The Solution
- Urban
- Ensemble
- Building
- Detail
- Conclusion
3D section west side

Restaurant
Meeting rooms
Lobby
Conference hall
Public facilities
3D section west side

- Introduction
- The situation
- Urban ensemble
- Conclusion

- The assignment
- The solution
- Building detail

Public facilities
Conference hall
Restaurant
Meeting rooms
Lobby

Restaurant
Meeting rooms
Lobby
Conference hall
Public facilities
CONFERENCE HALLS

Section C: Conference hall

Location

- Introduction
- The situation
- The assignment
- The solution
- Urban
- Ensemble
- Building
- Detail
- Conclusion
CONFERENCE HALLS

Section C: Conference hall

- Introduction
- The Situation
- The Assignment
- The Solution
- Urban
- Ensemble
- Detail
- Conclusion

Impression New Situation

Impression Old Situation

Main Materials

Location

Section C

63-79
Section D: Transition zone, scaled from 1:20

LOCATION
FLOOR DETAIL: MERGE OLD AND NEW

Section D: Transition zone, scaled from 1:20

Detail A: Floor, scaled from 1:5

Section D

LOCATION

- INTRODUCTION
- THE SITUATION
- THE ASSIGNMENT
- THE SOLUTION
- URBAN ENSEMBLE
- BUILDING DETAIL
- CONCLUSION
FLOOR DETAIL: MERGE OLD AND NEW

Section D: Transition zone, scaled from 1:20

Detail A: Floor, scaled from 1:5

- Introduction
- The situation
- The assignment
- The solution
- Urban ensemble
- Building detail
- Conclusion
ROOF DETAIL: MERGE OLD AND NEW

Section D: Transition zone, scaled from 1:20

LOCATION
ROOF DETAIL: MERGE OLD AND NEW

Section D: Transition zone, scaled from 1:20

Detail A: Floor, scaled from 1:5

- Introduction
- The situation
- The assignment
- The solution
- Urban ensemble
- Building detail
- Conclusion

Location

Existing steel profile tube
Adjusted sandwich panel
Raw steel finishing
Insulation sheep wool pane
Curtain wall element
Water resistant steel frame
RESTAURANT (AND LOUNGE)

- INTRODUCTION
- THE SITUATION
- THE ASSIGNMENT
- THE SOLUTION
- URBAN
- ENSEMBLE
- BUILDING
- DETAIL
- CONCLUSION
Reactivate Industrial Heritage

A reaction on a conference centre competition
IMPRESSION MOVIE