ARTS, CRAFTS AND SCIENCE LABORATORY

“From the isolated enclave
to the intimate place of social life and creativity/
history and innovation”

ARMAMENTARIUM
Armory for the States of Holland and West Friesland
GRADUATION REPORT
volume 2  [THE RE-DESIGN]
ARMAMENTARIUM
Armory for the States of Holland
and West Friesland [1601-2014]

R-MIT Graduation Studio: Delft-
Armamentarium/Paardenmarkt

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Delft, June 2014
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>INTRODUCTION</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORKING PROCESS STRUCTURE: The &quot;WHY&quot; Phase</td>
<td></td>
</tr>
<tr>
<td>&quot;Analysis and Research Theme&quot;</td>
<td>03</td>
</tr>
<tr>
<td>Starting points</td>
<td>04</td>
</tr>
<tr>
<td>Reference projects</td>
<td>05</td>
</tr>
<tr>
<td>WORKING PROCESS STRUCTURE: The &quot;WHAT&quot; Phase</td>
<td></td>
</tr>
<tr>
<td>&quot;Design Principles and Re-design configuration&quot;</td>
<td>06</td>
</tr>
</tbody>
</table>

## THE CITY/THE CONTEXT:
- Introduction | 07
- Problem Statement | 08
- Objective 1 | 09
- Objective 2 | 10
- Proposal Scale 1 | 11
- The programme: "ARTS, CRAFTS AND SCIENCE / HISTORY AND INNOVATION LABORATORY" | 13

## THE BUILDING:
- Introduction | 14
- Masterplan 1.500 | 18
- "Successive layers of Intimacy" _Re-design Concept_ | 21
- Final Design | 30
- Intervention area 1: South entrance path | 36
- Intervention area 2: North entrance path | 61
- Physics and Climate Design Principles | 78
- Salt and Moisture Problems Provision | 79

## WORKING PROCESS STRUCTURE: The "HOW" Phase  |
| "Implementation" | 80 |
| The bridge_Construction Principles | 81 |
| Building 1602_Construction Principles | 86 |
| Enclosed Atrium_Construction Principles | 92 |
| Central Atrium_Construction Principles | 94 |

## CONCLUSIONS/REFLECTION

## APPENDIX
- Reflection Paper | 99
- Graduation Plan | 100
- Position Paper | 103
INTRODUCTION

The current booklet constitutes the “Re-Design Report” volume 2 of the Graduation Report -implemented within the R-MIT Graduation Studio during the academic period of 2013-2014- succeeding the first part of “Research and Analysis Report”. Comprising a thorough documentation of the new design frame, pursues to record all the sequential phases of the redesign working process.

- tracing the values

In line with the premises of a respectful intervention approach, the first and primary concern of the redesign process, involved a thorough analysis of the existing structure, as presented through the “Research and Analysis Report”. What was there before, what still remains and what could or should withstand in the future, are all fundamental questions, persistently posed in the research procedure from the beginning to the end. By thorough investigation, analysis and understanding of the still traceable values, as impregnated on both material and immaterial substance of the structure was attempted. The process aimed to designate and sometimes reconstruct the elements witnessing the resistance of the composition over time.

- searching for the new balanced identity

As derived from the Analysis, tracing back the life of the ensemble and looking through the several transformation processes, affecting both functional and architectural identity, a durable memory of space withstands and still remains the dominant feature of the main volumes. Intimacy and enclosure reflected on the typology, the impression of the facade, as well as the setting of the composition, apart from demonstrating inherently existent values, they also result to the confined relation of the building with the public domain. The challenging task, naturally posed for the future intervention is thus to rehabilitate, by means of a new function and the proper redesign approach, the relation of the intimate content with the city, as a vibrant integrated piece of the urban life. The above request does not intend to perceive the relation with the urban space only as the bonding of physical territories, but principally as the permanent dialectic with the social substance of the city, interwoven on the future essence of the structure.

Assessing the importance of a mutual offering process developed between each individual existing structure and its urban environment, it is to my conviction that every intervention approach carries the purpose of a twofold meaning. Not only should it aim to discover and respect the tangible and intangible values, hidden behind the existing typology of the structure, but also redefine the relation of the building with the public domain.

THE RESEARCH QUESTION

Taking under consideration the two aforementioned concerns the core of the problem is designated within the scope of the main research question, running through the totality of the assignment.

How could the intervention approach define the new balance, achieved between the existing introvert identity of the composition and the potential demand for a more extrovert impression in the future?

METHODOLOGICAL APPROACH

Although primarily pertaining to the first part of the analysis, conducted within the studio with the purpose of tracing and documenting the still existing values of the building, research is never detached from the working process. Constantly incorporated in the design, it is considered to form an indispensable methodological tool, essentially contributing to all the gradual decisions made upon the new life of the structure.

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THE RESEARCH never detached from the working process

URBAN ARCHITECTURAL TECHNICAL

values values values

starting points starting points starting points

PROGRAMME AND INTERVENTION interconnected

TWO-DIRECTIONAL INVESTIGATION underlying

RESEARCH AND DESIGN
Regarding the several successive layers of the working process, from the stage of analysis of the existing structure up to the configuration of the final re-design, three main phases can be recognized. Why, What and How condense both the sequence of steps and the followed methodological approach. Interposed among the three main phases, research is unfolded throughout the materialization of the project, indicating the relevant consideration of general theory and practice as an indispensable component of the new design.
STARTING POINTS

THE CITY/THE CONTEXT

CONSIDER THE CRUCIAL LOCATION

The crucial location of the Armamentarium Complex upon the intermediary zone where the two opposing identity areas of the city converge and intersect, poses the demand for a crucial response. The issue concerns not only the definition of the introverted/extended identity of the composition, but primarily, the significant role of the ensemble and the future function it accommodates, in the designation of a new relation between the two contrasting poles, redefining consequently the harmed coherence and bonding of the urban pattern.

BRING BACK THE MEMORY OF THE NORTH-SOUTH AXIS

The deeply impregnated in the soul of the context area, meaning of the North-South axis, has not only been captured in the history of the place but has substantially been involved in the transformations of the introverted/extended identity of the composition over the years. The current strong fragmentation of the axis with the loss of continuity between the inner centre and the urban life beyond the “city walls”. It has also been associated in a way, with the loss of directionally towards the composition, which has therefore been deprived from its original introverted meaning as a destination element and transformed into a strongly self-oriented enclave.

ENHANCE THE CONTINUITY OF SPACE

Despite the evident interruption of the axis, both in terms of aesthetics, urban space qualia and functional identity, continuity can be traced upon the urban pattern of the axis, revealing the still traceable memory of the water paths. In relation with the new implied directionally encouraged by the open space in front of the composition, the axis can play a substantial role in the connection of the two sides, also resulting in the new introverted identity of the composition.

THE BUILDING

PRESERVE GEOMETRY

Diversity reflected on materials and morphology demonstrates the intrinsic identity of the ensemble as a powerful synthesis of heterogeneous elements. Geometry, expressed by means of symmetry, scale and rhythm ensures the solid existence of the composition in time and place, regardless of the morphological changes that may transform the aethetical impression. Geometry, however, not only constructs the underlying language of the complex but also used in relation with the openings can form a potential basis for enhancing the exterior introverted identity of the composition.

RELATE THE TWO FOCUS POINTS

Both the overall typology and the interior experience of the complex reveal the dominant introverted organization of space. The parallel evident orientation of the main facades to the water, as derived from the nature of the original function - based on the strong dialogue with the water path - two opposing tendencies are intermingled within the same spatial experience. A possible relation of the two implied focus points could probably result in the new dialogue between private/self-organization and public (interaction with the surroundings), affecting substantially the introverted identity of the composition.

PRESERVE THE TIMBER CONSTRUCTION

The dominant presence of the timber structure, mainly responsible for the essence of rhythm and scale in the cognitive understanding of space, also intensifies the coherent identity of the composition. Despite the variations revealed in the morphological impression of the different interior parts, continuity is perceived through the uniting structural identity of space, achieving to join all the diversities together, under the meaning of one coherent spatial experience.

RESPECT THE CONTRASTING IDENTITIES

Natural daylight and materiality, expressed on textures and colours, constantly co-operating and determining the interregnable appearance of the composition, also demonstrate how the tangible details of the structure can decisively participate in the introverted or introverted perception of the interior space.

REVEAL AND EXPOSE THE LAYERS OF HISTORY

Derived from the successive interventions, several layers of history have been deposited on the existing structure. (1650 building studied as a representative example) without however lowering the integrity of the unified whole. The history of the transformations evident in the current state of the composition indicates how different, sometimes opposing identities co-exist if only respecting the soul of the existing values. Upon the awareness of the laws of balance, introversion and extraversion can in the same sense appear in a creative synthesis of opposing tendencies, defining the new identity of space without compromising the unity of the whole.
THE FOCUS OF THE RESEARCH

investigate how architecture can at the same time preserve and reverse the identity of intimacy and enclosure, reciprocating to the demand for openness and active blending of the building with the surrounding space.

CHOICE OF CASE STUDIES BASED ON

- the opposing natures of the new function [public-private]
- the increased demand for integration to the public life of the city

REFERENCE PROJECTS

REMODELLING OF CASTELVECCHIO MUSEUM
Carlo Scarpa_Verona [1957-1973]

REUSE AND TRANSFORMATION OF LE MURATE COMPLEX
Renzo Piano_Florence [1998-2015]

CONCLUSIONS

- spatial experience and not function determine intimacy
  Introversion and extroversion, even though perceived only by means of spatial experience, are intentionally associated with fundamental architectural features of space. Therefore, it is not about the function but the architecture and organization of space that define intimacy or extroversion.

- all three positions of the observer are essential
  All successive positions of the observer equally participate in the perception of the new experience of space, gradually constructed from the urban domain up to the most intimate layers of the composition.

- introversion/extroversion theme, a generic tool
  The process of investigating the introvert or extrovert aspects of spatial experience is identified as a generic methodological tool, for every intervention approach.

THE THREE POSITIONS OF THE OBSERVER

- public space
- intermediate territories
- enclosed space

PRESERVE AND REVERSE INTIMACY

A PUBLIC FUNCTION CAN BE INTROVERT and the opposite

OPPOSITIONS

PREVIOUS NON-CONVENTIONAL PERSPECTIVE

SEE APPENDIX: “POSITION PAPER”
1. ANALYSIS
2. RESEARCH THEME
3. REDESIGN PRINCIPLES
4. RE-DESIGN CONFIGURATION
5. IMPLEMENTATION

- VALUES
- RESEARCH QUESTION
- MAIN CONCEPT
- SPACE
- FORM
- CONSTRUCTION

WORKING PROCESS STRUCTURE

REFERENCES

the uniting timber construction...
**THE CITY/THE CONTEXT**

Seeking for the new life of the composition, and taking under consideration all the successive scales of analysis, urban planning could not have been excluded from the main concerns of the redesign process. Fundamental springboard of the research has been the principle that every building or site of historical and social importance draws its sustenance from the qualities and substance of the surrounding life of the context area. Especially interpreted as the introvert or extrovert identity of space, it is not a question why the enclosed content finds its individual meaning when related with the context, the social material and immaterial space within it is involved.

Tracing back the changing interrelations witnessed between the Armamentarium Complex and the space around it, a reciprocal offering process, engages the terms of a synergetic relationship and an indisputable dependence of one on the other. Primary concern of the intervention strategy is therefore to encounter the complex as the stimulating piece of life that activates the wider urban domain, perceived not as the ultimate revitalizing function but more as the matrix of redevelopment that is just about to be initiated and continued in the future. The intervention approach envisions consequently, not only re-establishing the lost vitality of the complex, but also framing the terms and conditions upon which the environment around it will ponder its role and participation to the vigorous everyday life of the city. For all the aforementioned reasons urban planning is designated as one of the fundamental objectives of the current project.

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**OBJECTIVES**

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**THE INTERVENTION STRATEGY**

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**URBAN PLANNING**

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"Old" and "New" Recomposing the fragmented pieces of the urban collective memory

The crucial location of the Armamentarium Complex, upon the intermediate zone where "old" and "new", the two fragmented driving forces of the city converge and possibly interact, poses the demand for a crucial response. The issue concerns not only the definition of the introvert/extrovert identity of the composition, but primarily the significant role of the ensemble and the future function it accommodates, in the designation of a new relation between the two contrasting poles, redefining consequently the harmed coherency and bonds of the urban pattern.

Furthermore, the deeply impregnated memory of the North-South axis, has not only been captured in the history of the place, but has substantially been involved in the transformations of the introvert/extrovert identity of the composition over the years. It has been associated in a way, with the loss of directionality towards the composition, which has therefore been deprived from its original extrovert meaning as a destination element and transformed into a strongly self-oriented enclave. By re-instating therefore the strong identity of the axis, both the coherence of the city and the new extrovert meaning of the composition can be realized, within the two directional purpose of the intervention strategy.
**PROBLEM STATEMENT**

**THE TWO DRIVING FORCES OF THE CITY**

- **the old**
  - the monumental buildings
  The old pertains to the glorious past of the city, still traceable behind the monumental facades, exposed to the eye of the observer as the distant scenery of urban life. The content behind the walls is however usually not accessible and thus preserving its intimacy, away from the vital experience of the city.

- **the intangible content**
  The 17th century, the Golden Age of cultural, political and social florescence, has proclaimed the city of Delft as a place of historical importance and one of the most attracting destinations for tourism worldwide. The flourishing arts and crafts, encapsulated on the paintings of Vermeer, Pieter de Hooch, the famous blue and white Delft ceramics are all fragments of history widely dispersed as such in the old city centre. Those pieces of artwork that constitute a precious resource of knowledge are offered to the observer only as obsolete, monumental objects, but never as a currently active experience of creativity.

- **the new**
  - the TUDelft Technological park
  The new, perceived as the field of constantly developed knowledge is the technological park of TUDelft, a place of creativity, science and innovation, where the future life and development of the city is grounded on. The independent presence of the university in the urban fabric has gradually directed the self-existent introvert typology of the function, leading in total fragmentation between the inner content of the technological community and the city beyond it. Although pertaining to the major fields of interest for the city, both knowledge and achievements of TUDelft are not conveyed to the observer, keeping away both the local people of the city, as well as the external visitors, tourists or potential parties of interest.

**INTERRUPTION**

Physical interruption of the north-south axis is primarily reflected on meaning. The new part, kept in a distance from the old city centre, intends to form an independent unity. Interruption:

- deprives the old city centre from the most vital part of the population, the young people
- hinders the young visitors from developing a rooted relation with the sense of the place, the history and the past of the city they are welcomed in

**INTROVERSION**

Both old and new are not revealed to the public and demand exploration of their obscure content
OBJECTIVE 1

THE CITY/THE CONTEXT

STIMULATE THE EXTROVERT IDENTITY OF THE TWO DRIVING FORCES ALONG THE NORTH-SOUTH AXIS
- by participation to the experience
- by exposition to the public

Communicate the old/past:
-not only as a deeply impregnated memory of the city, that deserves to be preserved and revitalized for the future
-but primarily as a potential, dynamic field of public contemplation and discourse

Communicate the new/future:
-stimulate the interaction of people with the field of innovation and technology, encouraging the initiation of the local community to the achievements of science and the
-regarding simple people and industry

Arts, Crafts and history revealed
Science and Innovation exposed
OBJECTIVE 2

THE CITY/THE CONTEXT

BRING THE FORCES IN A CREATIVE DIALOGUE
- by constructing their mutual interaction within the same structure

More than just communicating the two poles along the axis of Oude Delft, their reciprocal collaboration is initiated by bringing both within the one continuous life of the complex. Arts and Crafts on the one hand and Science and innovation on the other, form the two juxtaposed forces, placed in a constant dialogue and mutual offering process for the first time in the history of the city.
THE EXPOSITION PROMENADE

The exposition promenade is a continuous fabric of public open and enclosed territories developed along the north-south axis of Oude Delft envisaging to redefine the qualities and experience of the path, involving the three main territories of space, the open urban space, the enclosed volumes and the intermediate zones.

The significant historical role of the water path is now re-instated in terms of a public route that aims to construct a progressive narrative / a showcase of the past and the present substance of the city offered to the observer as a coherent experience of space.

HISTORY

On the northern part of the axis, slight interventions made on the plots behind the monumental façades aim to enhance the relation of the intimate enclosure with the public life of the street and by that reverse the isolated current identity of the volumes. According with the outcome of the research on the introvert-extrovert identity of space, the experience of the visitor in the courtyard can be proved substantially important for the relation of the intimacy of enclosure with the openness of the public domain.

Opening up the courtyards

By creating visual and physical connections, the open courtyards hidden behind the monumental volumes are reconnected with the street. The visitor of the promenade is thus encouraged to penetrate the intimate life of the plot and thus come a little bit closer to the life behind the walls, even though he/she is probably not allowed to access the enclosed volume.

ARTS, CRAFTS AND SCIENCE-HISTORY AND INNOVATION LABORATORY -working, learning, exposing-

The pragmatic function that aims to construct the dialogue of old and new, preservation and progress, the collaboration of arts and crafts with science and technology.

OLD NEW

On the opposite, south part of the axis, small science galleries and outdoor encounter spaces envision to address the interaction of east and west upon the extended Oude Delft promenade and communicate the current concerns and outcomes of the main fields of research being conducted in the University. These galleries instead of simple exhibition areas mainly constitute specialized information points, bringing the visitor closer to the science and innovation achievements being in progress.

INNOVATION,

The achievements of the technological park
PROPOSAL_SCALE 1

ENTRANCE AREA

OLD WALL

OPEN COURTYARDS

TUDELFT SCIENCE GALLERIES
THE EXPOSITION PROMENADE

CITY INFORMATION POINT

ACCOMMODATION ZONE

TUDELFT EXPOSITION BOXES

ARTS, CRAFTS AND SCIENCE LABORATORY

- Arts and Crafts Laboratory
  - permanent exposition area: 550 m²
  - production/temporary exposition space: 135 m²
  - research lab/group workshop area: 710 m²
    - painting and drawing studio: 385 m²
    - pottery and ceramics studio: 385 m²
  - private working area: 500 m²
  - Total: 1455 m²
  - capacity in people: 250

- Science Laboratory
  - permanent exposition area: 720 m²
  - production/temporary exposition space: 300 m²
  - research lab/group workshop area: 2850 m²
    - Architecture and Industrial design Lab: 710 m²
    - Construction and Material sciences Lab: 710 m²
    - Energy sources and Environment Lab: 710 m²
    - Vehicles and Transportation Lab: 710 m²
  - private working area: 800 m²
  - Total: 4670 m²
  - capacity in people: 450

- Complementary Functions
  - Library: 740 m²
    - Arts and Crafts: 290 m²
    - Science: 450 m²
  - Flexible Auditorium and encounter space: 412 m²
    - audience capacity: 150-300 people
  - Restaurant / Cafe: 760 m²
  - Auxiliary Functions: 220 m²
    - reception/ticket office space: 35 m²
    - cloakroom and storage space: 45 m²
    - restrooms: 170 m² (65 m² women - 65 m² men)

TOTAL: 8257 m²

OBJECTIVES and philosophy

- succession of functions [from public to private/bottom-up]
- constructing the main entrance path of the city
- laboratories as independent units in dialogue
- learning-working-exposing the three dimensions of organization in the labs

Each of the two laboratories forms a potentially independent unit of activities, organized according with the three main dimensions of the programme, involving the individual work of the experts (artists and scientists), the process of learning shaping the participation of the non-expertized audience and the final exposition territory. The three layers of functional organization follow the stratified structure of the volume and diversify the grade of privacy from bottom upwards.

GROUND FLOOR

FLOOR 1

ARTS, CRAFTS AND SCIENCE / HISTORY AND INNOVATION LABORATORY
Looking through the values of the composition and the particular objectives generated by the analysis, in line with the vision for the future role of complex, a two-directional purpose lies ahead. The new life incorporated in the notion of the new function and primarily encapsulated in the used means of expression and organization of space, posits the dual objective of both erasing the borders of isolation between private and public, and at the same time perpetuating the continuity of the most deeply impregnated memory of the structure. Dedicated to respect the invisible soul of the composition, the intervention strategy seeks to reinstate the power of enclosure, and in the meanwhile declare the new sense of place, embodied in the meaning of a nodal point of urban life, a dynamic field of ideological, social and cultural fermentation.

A public route penetrates intimacy, introversion/extroversion in a new balance. The demand of re-establishing the strong connection of the intimate life of the ensemble with the surrounding environment becomes the ultimate objective of the intervention approach, suggesting a new access route on land instead of the old water path responsible for the first extrovert identity of the composition. A public route is now introduced, integrated to the exposition promenade, in purpose of anchoring both north and south, old and new parts of the city within the intimate life of the composition. The Oude Delft axis penetrates the composition passing through the northern transition courtyard, and is progressively unfolded within the volumes, as a fundamental component of the interior introvert experience of space. The power of the new identity is demonstrated on the south, representative view of the composition, where the path extends beyond the boundaries of introversion (the walls) and constructs the extension of the Oude Delft axis and promenade, to the south part of the context area.

Upon the decision of extending the interior intimate life of the complex, to the south by means of a projected route, an underlying intention to re-instate the old historical memory of access from the south can be revealed. The strong gesture of the prolonged axis envisions bringing back the directionality towards the building, not only by means of an architectural element, but primarily as a walking route that absorbs the city within the enclosure of the composition. The new extrovert meaning of the setting is thus demonstrated through the dialogue initiated between the protected life and the public surrounding space. The same gesture aims also to symbolize the meaning of the new function as a generator of redevelopment to the south, activating permanently the connection of the old and the new parts of the city.

- Linking the three positions of the observer
- The gradual sequential and alternating experience of either the city or the building, not only aims to encourage their constantly mutual offering process, but also to satisfy the ultimate objective derived through the analysis, to construct a continuous experience of introversion/extroversion that links all the successive positions of the observer, in the three main conditions of space. From the public street, to the transition courtyards, up to the most intimate cores of the enclosed volumes, the visitor of the city discovers the new introvert sense and identity of place in balance with the valuable memory of intimacy and self-protection of the composition.
THE OBJECTIVE

- link the three positions of the observer for the first time and that way encourage the mutual offering process with the city.
THE PROMENADE _ RESEARCH ON DESIGN

Oude Delft projected anchors north to south
THE OBJECTIVE

- link the three positions of the observer for the first time and that way encourage the mutual offering process with the city
THE PUBLIC ROUTE

A path introduced, integrated to the exposition promenade, in purpose of anchoring both north and south, old and new, within the intimate life of the complex. Oude Delft axis, penetrates the composition and is progressively unfolded within the volumes, constructing the new balanced introvert/extrovert experience of space.

- the two access paths
  on west and south reciprocating to the main conceptual orientations of the function (tourists-students). The old main water accesses are now interpreted in land connections.

- the projected path
  Life is extended to re-instate the old historical memory of access from the south and bring back the directional quality towards the building. Not only an aesthetic element but a pragmatic walking route that absorbs the city within the enclosure of the complex.

- the three positions linked
  The gradual, sequential and alternating experience of either the city and the building, aims to encourage the constantly mutual offering process between privacy and exposure and connect under one experience the three successive positions of the observer.
BUILDING UP THE PROMENADE

The three main territories of the observer, subdivided into smaller segments gradually prepare the visitor for the next step and enhance the feeling of accentuated and dramatized introversion.

INSTRUMENTAL ELEMENTS

1. The border of transition
2. The border with the city
3. The relation with the existing

BORDERS CRUCIAL for

1. Introvert identity and experience
2. Bonding between old and new

SUCCESSIVE LAYERS OF INTIMACY

RE-DESIGN CONCEPT
THE OBSERVER IN THE PUBLIC SPACE

THE NEW IDENTITY CONSTRUCTED

By constructing equally and connecting the different positions of the observer, A NEW STORY is revealed about how the building preserves its introvert typology and is rooted at the same time into the city. And that is what I call the new sense of place, lying between intimacy and the demand for openness.

INTRODUCTION ENHANCED

TWO LEVELS OF INTIMACY

- perceive the complex as one self-oriented mass
- and reveal the strong intimacy of the two independent volumes

by:
- preserving the solidity of the facades
- enhancing the exposition of the centrally positioned courtyard

EXTROVERSION ENHANCED

by the projection of the internal route to the outside and interpreting it as a public path

LEVEL OF INTIMACY 1

one self-oriented mass

LEVEL OF INTIMACY 2

the two independent volumes
EXTROVERSION ENHANCED
- in the intermediate territories
- the strongest interventions
- dialogue with the existing initiated

THE GREEN COURTYARD
- an open public square
- green integrated to the city attracts
- the entrance and prepares the visitor
- for the upcoming intimacy
- a row of public functions forms
- the new smooth border between the
- building and the city
- the old extends as a grid system to
- the outside

THE CENTRAL COURTYARD
- the main enclosed encounter space
- the longitudinal walls convey the
- production processes and stimulate the
- dialogue with the existing structure

THE OBSERVER IN THE TRANSITION COURTYARD
TWO LEVELS OF INTROVERSION
connected under one continuous experience of space

GROUND FLOOR:
- one self-oriented space surrounds the central core of life, the courtyard

UPPER FLOORS:
- orientation of the volumes around the intimate courtyards, which form the vibrant cores of private life
The observer in the public space demonstrates the extrovert meaning of the new function, encouraging the entrance and at the same time creating an embrace, a protected place for the visitor to stand and look at the building again.
THE OBSERVER IN THE TRANSITION COURTYARD

THE IN-BETWEEN PREPARATION SPACE

comes to soften the strict borders between the open, illuminated public square and the dark intimate exposition space, gradually initiating the visitor to the upcoming experience.

RE-DESIGN CONCEPT
THE OBSERVER IN THE ENCLOSED SPACE

INTROVERSION ENHANCES CONTINUITY by accentuating the visual connections of the two independent volumes, and establishing their relationship around one central core of life. The complex remains on the ground floor considered as one self-contained structure.
THE OBSERVER IN THE CENTRAL COURTYARD

THE CENTRAL CORE OF THE NEW LIFE

encapsulated in the central transition courtyard, which aims to bond old and new, extroversion/introversion and formulate the most communal meeting space of the ensemble.
VISUAL PERSPECTIVES ACTIVATED

a mutual offering process activates the extrovert sense of place by enhancing the connection of the building with the surrounding space.

OLD CHURCH

OUDE DELFT
The clear circulation path and the distribution of functions enhance introversion and unity constructed by:

- Two entrance paths connected on-site and outside, one inside
- The one integral flooring material
- The space cavities and level variations embracing and signifying the path

Space Cavities:

- Distances kept from the existing walls as barriers of introversion
- Create transparent-thick walls
- Construct the main exposition zones
- Revealing the existing as an exposition element itself

Ground Floorplan + 0.00 Scale 1/100
INDEPENDENCE

equal/self-oriented unities
enhanced by every intervention
choice [conceptual/physical]:

- functional organization towards the atrium (the focus point)
- skylights/vertical circulation cores
- establishes level interaction around the illuminated/extracted cavities of communal life
GROUND FLOOR:
one unified life integrating the communal cores of the atriums

UPPER FLOORS:
independent unities
by means of:
- organization
- daylight zones
EXISTING SITUATION BEFORE THE INTERVENTIONS

DEMOLITIONS/ALTERATIONS
DEMOLITIONS

Demolitions take place in the central atrium area, according with the main principles of the concept, new spatial qualities are defined. The previously isolated open air space opens up to the public space, envisioning to be transformed into the enclosed most communal assembly territory of the composition.
expressed as the idea among the existing volumes, the new structures aim to materialize the double anchoring of the complex in the urban fabric.
INTERVENTION AREA 1: SOUTH ENTRANCE PATH

1. the bridge
   A pole structure lying above the water, experienced as a sequence of territories/public spaces that aim to suggest different views and interrelations between the building and the city.

2. the entrance box
   The new concrete volume signifying the entrance on the first level of the complex.

3. the communal atrium space
   Seen as the projection of the outdoor public life into the protected intimacy of the ensemble.

 transformation of the ASCENDING routing into a DESCENDING path marks the distinction between outdoor and indoor life without real separating them, enhancing the feeling of intimacy.
The Bridge acting as a transparent screen will infil - trate the view to the existing constructing through spatial variations and circulation an experience of intimacy and interaction with the city. The spatial gap between the building and the public street becomes the territory of dialogue between the two poles.
THE BRIDGE
EXPERIENCED FROM A DISTANCE

The screen is perceived as one continuous transparent structure composed by vertical poles and a transparent fabric in between that only aims to blur the views, dramatizing.
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THE BRIDGE becomes the protecting border that clearly defines the open-air performance space as well as a NEW PLACE OF PUBLIC ASSEMBLY in front of the main facade.
the identity of this space is what results in a strong alternation of the previous isolated profile of the complex not just walk by the historical facades but STAY /INTERACT/COMMUNICATE in front of the existing
EXPERIENCED BY THE VISITOR

the screen is realized as a fragmented wall that directs the glaze and constructs seating zones capturing different views of the city.
lightening the construction close to the existing
the bridge passes as much as more softly by the old facade—without touching it—but also as being derived through the existing structure.
Introversion is more enhanced by
the heavy, enclosed impression
of the entrance box signifying the
distinction between outdoor and
indoor areas of the path.
ANONYMOUS VERNACULAR TIMBER STRUCTURE IN ITALY

The “trabocco” is a handmade pile structure used for fishing.

- The structure itself, by lightness and irregularity, defines the spatial experience.
PIER IN BORGHETTO SANTO SPIRITO, ITALY

- a steel pole/canopy structure
- the dominant vertical profiles/
- and the suspension system

gives a clear orientation to the sea by a transparent steel screen
FORM AND STRUCTURE
CONSTRUCTIVISM INFLUENCES:
- steel frames exposed
- structure defined by rhythm and geometry

REMINISCING OF:
1. ephemeral coastal architecture of timber and rods, lightness and irregularity
2. underlying relation with the basic geometrical principles defining the existing
entrance hall
descending path
secondary connection
main connection zone

ATRIUM ASSEMBLY SPACE

flexible auditorium space
secondary connection
main connection zone
entrance hall

CENTRAL ATRIUM FLOORPLAN +4.60_SCALE 1/100
ATRIUM ASSEMBLY SPACE
- continuation of the screen
- increasing transparency and orientation to the Oude Delft
- the descending path highlights the intimate identity of the enclosed space and accentuates the essence of introversion.
THE BRIDGE

EXPERIENCED FROM A DISTANCE

the screen is perceived as one continuous transparent structure composed by vertical poles and a transparent fabric in between that only aims to blur the views _dramatizing THE ATRIUM_AUDITORIUM SPACE_
THE BRIDGE

EXPERIENCED FROM A DISTANCE

the screen is perceived as one continuous transparent structure composed by vertical poles and a transparent fabric in between that only aims to blur the views _dramatizing

ATRIUM ASSEMBLY SPACE

lightness and transparency define the qualities of an open air like enclosed assembly space, revealing the existence of a central core of communal life, enhancing the interaction and dialogue between the main and distant volumes

the new apparent identity of this area demonstrated to the outside ascertains the necessity for the decided demolitions

THE ATRIUM, EXTERIOR IMPRESSION
NORTH ENTRANCE_GROUND PLAN_SCALE 1/100

NORTH ENTRANCE_LONGITUDINAL SECTION_SCALE 1/100

layer of intimacy 1
layer of intimacy 2
layer of intimacy 2
entrance hall/reception
outdoor green path
cafe/restaurant
kitchen area
complementary services

NORTH ENTRANCE_GROUND FLOOR_SCALE 1/100

62
the transparent screen defines the new geometry imposed by the access path, while respecting at the same time the symmetrical configuration of the existing façade. By creating a new intermediate zone, a new preparation territory is clearly defined, resulting in a sense of introversion right before the enclosed experience of space is initiated.
upon the converging point of the two “anchors” between the complex and the urban space, the two major access paths are connected. The meeting zone, materialized through the qualities of the green square, is an open air public territory envisioned to substantially contribute to the limited green zones network of the city fabric.
BUILDING 1602 INTERIOR

exposition structure

library space
CLIMATE CONDITIONS AND DEMANDS:
restrictions in intake air supply
- from the exterior walls
- adequate recycling of the interior air - comfortable environment
- demand for regulating the moisture content inside
- balanced exchange of warm and cold air - avoiding excess cooling effect
- utilize the potentials of the atrium

HYBRID VENTILATION PRINCIPLE
Mechanical input of preheated fresh air
- in combination with natural exhaust system

HOT STORAGE THROUGH SOLAR RADIATION:
- enhances the warm air supply during the cold months

HYBRID VENTILATION PRINCIPLE:
Mechanical input of preheated fresh air
- in combination with natural exhaust system

SUMMER:
- adequate natural ventilation system (perhaps also mechanically induced)
- BLINDS for cool fresh air supply against overheating during the warm months

OUTPUT:
- output of warm exhaust air 1: the atrium roof
- output of warm exhaust air 2: the roof openable skylights

INPUT:
- central plant of fresh air supply
- mechanically assisted input

HEATING PLANT:
- condensing boiler heats the water (efficient when combined with underfloor heating systems)
1. no excess moisture on the joints between the brickwork and the wooden structure
2. proper reaction in moisture and salt problems (the “breathing walls”)
3. a salt accumulating plaster can be recommended if sea salt spray/splash up water is the main source of salts
4. alternatively mechanical interruption can be an effective solution in rising damp effect (if observed under leasings)

SALT AND MOISTURE PROBLEMS PROVISION
THE BRIDGE
CONSTRUCTION PRINCIPLES

PRINCIPLES:

- Lightweight steel construction (transparency)
- Renovation of the horizontal steel elements and use of a suspension
- Structure defines the spatial qualities
1. I-beam stainless steel profile (300x150x7.5 mm)
2. metal plates 10 mm thick enhancing the durability of the node
3. 10 mm thick flat steel strap
4. pair of flat steel straps welded to the tube and screwed to the horizontal beam
5. stainless steel tensile bracing
6. tensioned perforated stainless steel grid construction
7. stainless steel suspension cable 20 mm thick
1. I-beam stainless steel profile [300x150x7.5 mm]
2. double U profile [300x110x10 mm] welded together by means of in-between spacer plates
3. spacer plates connecting the U profiles
4. single U profile [300x110x10 mm]
5. steel angles [100x100x8 mm] connecting the U profile to the column
6. metal plates 10 mm thick enhancing the stiff bonding between vertical and horizontal profiles of the frame
7. weather resistant timber planks 30 mm thick
8. plywood batten [19 mm]
9. electricity channel and led light installation
10. stainless steel tensile bracing
11. tensioned perforated stainless steel grid construction
12. suspended stainless steel bench structure composed of:
   - tubular steel elements
   - metal grid as the seating surface
The bridge_Suspension system
Scale 1/5

1. steel U profile [300x110x10 mm]
2. double cantilevered U profile (300x110x10 mm) reducing in height
3. steel tube of 100 mm diameter
4. stainless steel suspension cable 20 mm thick
5. pair of flat steel straps welded to the tube and screwed to the horizontal beam
6. tensile cable 20 mm thick anchored on the ground level and ensuring the stability of the frame
BUILDING 1602
CONSTRUCTION PRINCIPLES

- two directional suspension system
- steel and wood connections
- loft steel construction
1. Environmentally upgraded roof existing roof construction composed by:
- clay roof tiles [new greyish colour]
- 20x40 mm softwood battens
- 5 mm bitumen felt waterproofing layer
- 60 mm polystyrene thermal insulation
- 5 mm bitumen felt waterproofing layer
- existing laminated wooden cladding
- existing timber joists

2. lightweight concrete layer [100 mm maximum height]

3. existing brickwork [600 mm thickness]

4. existing wall penetration intersection point consisting of:
- 500 mm thick lightweight concrete borders
- fire protection layer (rigid plasterboard/20 mm thick) screwed on the concrete layer

5. existing render:
- 10 mm coat of lime plaster
- 3 mm paint coating

6. double steel U profile [300x100x10 mm] welded by means of in in between spacer plates and bearing the load of both suspension systems (bridge outside, loft inside)

7. flat steel strap 10 mm [enhancing the rigidity of the connection joint between the beam and the wall]

8. suspension cable 10 mm thick

9. existing timber planks 30 mm thick

10. double steel U profile [300x100x10 mm] welded by means of in in between spacer plates and bearing the load of the suspended loft construction
Suspended loft construction
Scale 1/5

1. stainless steel suspension cable 10 mm thick
2. double steel U profile [300x100x10 mm] welded by means of in between spacer plates and bearing the load of the suspended loft construction
3. stainless steel railing
4. stainless steel perforated grid
5. I-beam steel profiles [200x100x5.6 mm] welded on the main double U profiles
6. stainless steel tensile bracing ensuring the rigid connection of the main beams [double U profiles] placed every 4.5 m
1. upgraded existing floor construction composed by:
   - existing laminated wooden planks 30 mm thick
   - 100x50 mm softwood battens
   - metal diffusion plate
   - 60 mm plasterboard (sound insulation layer)
   - 30 mm absorbent material (sound insulation layer)
2. existing main wooden beam
3. suspended U profiles (200x75x8.5 mm) used as the base element for the tension of the cables
4. stainless steel cable 5 mm thick
5. cable tensioner
6. electricity channel supported on metal perforated grid
7. ventilation duct of 400 mm diameter
8. stainless steel suspension cables 5 mm thick
1. existing brickwork [600 mm thickness]
2. existing wall render:
   - 10 mm coat of lime plaster
   - 3 mm paint coating
3. corten steel sheet 5 mm thick on screwed on the existing stone sill
4. supportive steel edge 7 mm thick
5. custom made bench composed by:
   - vertically placed timber slats 30 mm thick
   - steel L profiles with vertical spacer plates welded in between them every 500 mm where the slats are anchored and stabilized
   - double U steel profiles 50x25x5 mm
6. main floor construction composed of:
   - 12 mm flooring cement
   - 73 mm cement screed with underfloor heating pipes integrated
   - 0.4 mm separating plastic foil
   - double 5 mm bitumen felt waterproofing layer
   - 60 mm polystyrene thermal insulation
   - 120 mm leveling concrete layer
   - 0.4 mm separating plastic foil
7. corten steel sheet 2 mm thick covering the gap space between the existing rendered masonry and the new floor construction
1. stainless steel suspension cable 5 mm thick
2. tensioner clamp
3. U steel profile used for anchoring of the cables [200x75x8.5 mm] integrated into the lightweight concrete layer
4. existing floor clay tiles
5. lightweight concrete layer
6. 0.4 mm separating plastic foil
7. double 5 mm bitumen felt waterproofing layer
8. 60 mm polystyrene thermal insulation layer
9. 120 mm levelling concrete layer
10. 0.4 mm separating plastic foil
11. main floor construction composed of:
   - 12 mm flooring cement
   - 73 mm cement screed with underfloor heating pipes integrated
   - 0.4 mm separating plastic foil
   - damp and thermal insulation layers
12. electricity channel and led light installation
tensegrity like tensile roof construction

sequence of materials

steel profile penetrating the masonry

ENCLOSED ATRIUM
CONSTRUCTION PRINCIPLES
Tensegrity trusses glass facade construction supported on the single vertical steel I-beam profiles/columns of the atrium.

1. Coated double glass panels fixed to the pre-stressed stainless steel construction with Quattro-nodes
2. Compressive tubular steel element
3. Tensioned cables
4. Junction point of tensioned cables

Detail 1

Glass facade construction
Scale 1/5

Tensegrity trusses glass roof construction supported above the main steel beams of the atrium roof.

1. Coated double glass panels fixed to the pre-stressed stainless steel construction with Quattro-nodes
2. Compressive tubular steel element
3. Tensioned cables
4. Custom made steel base adjusted to the suspension cables' demands of space underneath
5. Double U steel profile [400x110x14 mm]
6. Stainless steel suspension cable [30 mm]

Detail 2

Glass roof construction
Scale 1/5

Central Atrium
Construction Principles
Tensile glass facade construction

Scale 1/5

Description: Tensegrity trusses glass facade construction supported on the single vertical steel I-beam profiles/columns of the atrium.

1. coated double glass panels fixed to the pre-stressed stainless steel construction with Quattro-nodes
2. compressive tubular steel element
3. tensioned cables
4. junction point of tensioned cables
1. main steel column \( I \)-beam profile 
   \[300\times 150 \times 7.1\, \text{mm}\]
2. anchoring structure consisting of:
   - reinforced concrete base \(850\times 330\, \text{mm}\)
   - stiffness steel angles \(8\, \text{mm}\) welded on both the \(I\)-beam profile and the steel footing
   - steel frame consisting of double \(U\) profiles in between
3. new floor construction:
   - 12 mm flooring cement
   - double 5 mm bitumen felt waterproofing layer
   - 60 mm polystyrene thermal insulation
4. double glass openable blinds [serving as fresh air input and natural cooling of the atrium during the warm months]
architecture, perceived as this kind of arts and crafts, theory and practice, that is inherently associated with the human nature and its several social expressions, forms above all a loud statement in space regarding human history and life and interact. Buildings as indispensable components of the urban landscape, although unconsiously sometimes, always suggest, a more or less enhanced interrelation among the users, the private experience of an enclosed space and the wider life of the city.

it is, in that scope architecture totally responsible for the clear demonstration of a position, towards the bonding structure between the building and the urban reality, the fermentation allowed between private and public territories.

in the context of reuse and restoration practice, the aforementioned duty seems to reveal even more crucial dimensions, as associated with values that extend far beyond the social identity of the existing structure and can substantially influence its perpetual and sustainable existence over time.

research approach and objectives

through the aforementioned perspective, among the main focus and concerns of the current graduation project, was my overall intention to investigate, designate and illustrate the terms and conditions that bond a building with the surrounding space. the confrontation al relationship of introversion/extroversion, even though intrinsically connected with the dominant features of the self-oriented structure, exceeds its relevance beyond the specificity of the current project. seeking for the unavoidable appropriate balance between old and new, the approach poses the generic question of how the intimate identity of every existing shell needs to be reconsidered and redened, in order to receive the new life and engage the terms of an improved relation with the surrounding urban space.

from the slight interventions on monumental territories of the historical urban fabric, envisioning to bridge the distance between private and public and the recreational encounter areas formed to suggest an improved quality of physical social fermentation, up to the challenging treatment of the existing complex, one dominant inten tion underlines and directs the research. the necessity for a new definition on the bonding system of the city, seeks for a sufficient response.

buildings of historical, cultural and social significance usually keep within their protected intimacy, values hid den, totally detached from the experience of the city. Monuments that fall into isolation and consequent de preciation are buildings that have gradually totally lost their relationship with the urban life. By re-installing thus the interaction between a part of the intimate content (the courtyard becomes one suggested territory that opens up to the city) of the existing and the experience of the observer in the public space, pieces of collective memory are reconstructed and given back to the city.

introversion and extroversion are for the current research, terms able to define the relations developed among the three spatial territories of the urban space, from the public to the most private content of the “life behind the walls”.

the understanding of their meaning should not only be perceived as a specific concern of the report but form essential awareness for everyone that decides upon the new life of an existing structure. every intervention applied on a historical building leads unquestionably to the new balance, derived from the bonding structure between old and new. Comprehending as major underlying objective of the approach, the need to prolong the life of the existing to every possible extent, the new identity of the structure, should primarily demonstrate the aforementioned demand.

- a new perception of sustainability

in that sense, only when the new identity expressing the balance, between old and new, private and public, introversion and extroversion aims to improve the relating process between the building and the city, the sustainable, perpetual existence of the composition as an indispensable component of the urban life can be substantially materialized.

by means of every decision taken throughout the working process of the assignment a new perception of sustainability has thus revealed, exceeding the borders of provision for an improved physical existence of the buildings in the future.

- reversibility

by means of lightweight interventions that hardly touch the existing and primarily act as the infill added among the volumes, reversibility can be also regarded as one important aspect of the envisioned demand for sustainable existence and respect to the existing values.

viollet de luc

The current reflection paper concerns the implemented within the R-MIT Graduation Studio [Research on Restoration, Modification, Intervention and Transformation] at the TU Delft Faculty of Architecture, research and design upon the Transformation and Reuse of the Armamentarium Complex [1601-2013], located at the city of Delft. The following review aims to formulate with clarity and argumentation a critical evaluation of the objectives designated by the assignment, the produced results, as well as the efficiency of the methodological path followed during the working process.

1. RESEARCH and DESIGN in mutual offering relation

Reflecting upon the procedure preceding the final outcome of the assignment, research and design have been indispensably integrated - in dy-namic interrelation and interdependence - into the approach of the theme. Research in theory and practice of reuse and restoration of architecture, as well as a wider concern about philosophy and sociological scientific work approaches, was not only a substantial part of the early first phase of analysis as defined by the assignment themes. Beyond this first attempt conducted, aiming to construct a thorough understanding of the content reflected on both materials and immaterial substances of the existing, research has been even more necessarily involved in the following phases of the project. Within the major objectives of the creative common course of literature/ references and design decisions was not only the scientific documentation of specific architectural solutions, but primarily a constant relevance between the theme of the assignment and the wider societal and building history background, placing it in real within the borders of the public domain of the surrounding city, the country, the world.

2. THE THEME OF THE STUDIO and THE CASE STUDY of the assignment

The Armamentarium project Complex [1601-2013] located upon the southern borders that inscribe the old historical centre of the city of Delft, has been designated by the R-MIT Studio as one of the case studies researched within the graduation assignment. The choice of the studio upon the current project responds, under my conviction, efficiently to the dominant concerns of the department. According with the particular philosophy of the studio, Restoration and Reuse are primarily perceived through the challenging task of integrating historical and architectural significance, along with the crucial demands of present and future - involving the contextual background of the building as well - into the frame of one integral redesign planning.

Armamentarium Complex and the task of reinstating the terms of a new life for its content, arises in such a way as one of the most crucial challenges of the restoration framework. Placed upon the crossroads of public life, the huge vacant ensemble, reveals the remnants of a carefully protected intimate value and seeks for a decisive response upon the redefinition of a new strong anchoring of the building within the life of the city and the demands of the rapidly changing spatial qualities of the context area. The new life chosen for the Armamentarium Complex, combining history and innovation, and introducing a work site for dynamic blending between the two forces, furthermore intends to connect and recompose the fragmented pieces of collective memory, for the city of Delft. Bringing Arts and Crafts of the past together with Science and Innovation knowledge of present and future in a reciprocal correlation, social, cultural and historical coherency is envisioned to be restored. Both in terms of architecture and function, the redesign approach aims to formulate such dialectic relations and let them being revealed as the only durable bonding between human beings and their built environment, as well as above all demonstrate how past, present and future shape equally our cities, our constantly changing lives.

3. METHODOLOGY and THE GUIDELINES OF THE STUDIO

Looking back through the three distinct phases of the working process as defined by the studio schedule [Analysis of the existing – Redesign Planning – Implementation in detail], a direct relation between the guidelines given and my personal methodological approach has been evident. Research, including a background of literature and references forms an indispensable part of every redesign scale of the project. Fundamental methodological tools as drawings [plans-elevations-sections], physical and digital models have all equally participated in the working process, as essential redesign tools in line with the studio framework.

4. WIDER SOCIAL CONTEXT RELATIONS

According with with the scope and concerns of my individual research question, INTROVERSION and EXTROVERSION qualities have equally determined my main redesign principles. Investigating throughout the working procedure, the confrontational relation of protected intimacy and interaction with the public, both interior content and the reflection of it on the urban domain have been the two driving forces of the project, evidently present in the final redesign planning. The rehabilitation approach of the existing fabric reflects with clarity a strong intention of feeding both private and public territories, constructing this way the new identity of space upon the indisputable dependence of one part on the other. Historical enclave and the city are in that perception connected maybe that strong for the first time, aiming to soften the borders arisen over time between the two opposing worlds. Social life and creativity are invited to experience not only the intimate content respected at the heart of the complex, but also the potentials of the urban space surrounding the volumes.
PRODUCT

PROBLEM STATEMENT

The current graduation project is implemented within the R-MIT Graduation Studio (Research on Restriction, Modification, Intervention and Transformation) at the TU-Delft Faculty of Architecture and the Built Environment. The theme and framework of the assignment concern the transformation and reuse of the Artillery Barracks Complex (1901-2013) located upon the southern borders that inscribe the old historical centre of the city of Delft.

The first traces in history place the origins of the ensemble within the years 1601-1603, when the State of Holland and West Friesland searched for the appropriate location able to accommodate the new storage space for weapons and military equipment. Commissioned for its crucial archives, directly behind the main entrance of the circumscribed enclosure, the building will form a substantial part of the defense system, composed by moat and walls and aiming to safeguard the integrity and personal existence of the city. A constant expansion process, starting in 1660 and completed in 1833 will gradually result in the current state of the composition, following and responding to the growing up demand for additional storage spaces available.

- Tracing the values

In line with the premises of a respectful intervention approach, the first and primary concern of the redesign process, involves a thorough analysis of the existing structure. What was there before, what still remains and what could or should withdraw in the future, are all fundamental questions, passionately posed in the research procedure from the beginning to the end. By thorough investigation, analysis and understanding of the still recognizable values, as ingrained on both material and immaterial substance of the structure is attempted. The process aims to designate and sometimes re-construe the elements witnessing the resistance of the composition over time.

- Searching for the new balanced identity

Tracing back the life of the ensemble and looking through the several transformation processes, affecting both functional and architectural identity, a durable memory of space withstands and still remains the dominant feature of the main volumes. Intimacy and enclosure reflect on the typology, the imposition of the facade, as well as the setting of the composition, apart from demonstrating intimate and exterior values. They result in the defined relation of the building with the public domain. The challenging task, naturally posed for the future intervention is thus to rehabilitate, by means of a new function and the proper redesign approach, the relation of the intimate context with the city, as a vibrant integrated piece of the urban life. The above request does not intend to preserve the relation with the urban space only as the bonding of physical territories, but principally as the permanent dialectic with the social substance of the city, intervened on the future eaves of the structure.

Assessing the importance of a mutual offering process developed between each individual existing structure and its urban environment, it is our conviction that every intervention should be clear about the condition, and as accurately from the context, as well as the border, both the resulting identity and the surrounding environment, which result in the final meaning. Not only should it aim to discover and respect the tangible and intangible values, hidden behind the existing typology of the structure, but also redefine the relation of the building with the public domain.

The research question

Taking under consideration the two aforementioned concerns the core of the problem is designated within the scope of the main research question, running through the totality of the assignment.

How could the intervention approach define the new balance, achieved between the existing intimate identity of the composition and the potential demand for a more extractive impression in the future?

GOALS

- The city/the context

Seeking for the new life of the composition, and taking under consideration all the successive scales of analysis, urban planning could not have been excluded from the main concerns of the redesign process. Fundamental springboard of the research has been the principle that every building or site of historical and social importance shows its substance form the qualities and substance of the surrounding life of the context area. Especially interpreted as the intimate or extractive identity of space, it is not a question when the enclosed content finds its individual meaning when related with the context, the social material and immaterial space within it is involved.

Tracing back the changing interrelations witnessed between the Artillery Barracks Complex and the space around it, a reciprocal offering process engages the terms of a synergic relationship and an indispensable dependence of one on the other. Primary concern of the intervention strategy is therefore to encounter the complex as the stimulating piece of life that activates the urban domain, perceived not as the ultimate revitalizing function but more as the matrix of environment that is just about to the initiated and continued in the future. The intervention approach envisages consequently, not only re-establishing the lost vitality of the complex, but also learning the forms and conditions upon which the environment around it will garner its role and participation to the vibrant everyday life of the city. For all the aforementioned reasons urban planning is designated as one of the fundamental objectives of the current project.

"Old" and "New"

Recomposing the fragmented pieces of the urban collective memory

The crucial location of the Artillery Barracks Complex, upon the intermediate zone where "old" and "new", the two fragmented driving forces of the city converge and possibly interact, poses the demand for a crucial response. The issue concerns not only the definition of the intimate/extractive identity of the composition, but primarily the significant role of the ensemble and the future function it accommodates, in the designation of a new relation between the contrasting poles, redefining consequently the formed core and the urban pattern.

Furthermore, the deeply imprinted memory of the North-South axis, has not only been captured in the history of the place, but has substantially been involved in the transformations of the intimate/extractive identity of the composition over the years. In this way, the loss of directionality towards the composition, which has therefore been deprived from its original extractive meaning as a destination element and transformed into a strongly self-oriented space. By re-establishing therefore the strong identity of the axis, both the coherence of the city and the new extractive meaning of the composition can be realized, within the two directional purposes of the intervention strategy.

- The old history

The circumcentred, still clearly distinct urban identity area, incorporates the oldest pieces of history assembling the past of the city. History perceived as the store of social, political, and cultural values, is not materialized upon cultural artifacts, which are still traceable - but not composed in a cohesive manner- in between and behind the walls. The demand of revealing and exposing the interconnected meanings constructing the significant past of the city, forms an imposed necessity for the future.

The new innovation

Even since 1960 that TUDelft was founded in the inner part of the city is gradually being more and more transposed beyond the borders of the central, independently existing. The southern technological zone, indicates the new field of development, attracting young visitors and researchers from all over the world.

The new function envisions not only to communicate the two poles along the axis of Delft Oost, but also stimulates their reciprocal collaboration by building them within the one continuous discourse of the city shape. Art, crafts and history on the one hand and sciences and innovation on the other, form the two juxtaposed forces, placed in a constant dialogue and mutual offering process for the first time in the history of the city.

The exhibition promenade

A progressive narrative of old and new historicity and innovation

The exhibition promenade is a continuous fabric of public open and enclosed space developed along the north-south axis of Delft crossing, enabling to redefine the qualities of space connecting old and new under one path and involving the three main territories of space, the open urban space, the enclosed volumes and the intermediate zones. The significant historical role of the water path is now re-instanted in terms of a public route that aims to become a progressive narrative / a showcase of the past and the present substance of the city offered to the observer as a coherent experience of space.

On the northern part of the axis (old city center), slight interventions made on the plots behind the monumental facades aim to enhance the relation of the intimate enclosures with the public life of the street and by that reverse the isolated identity of the volumes. According with the outcome of the research on the intimate/extractive identity of space, the experience of the visitor in the courtyard can be perceived substantially important for the relation of the intimacy of the enclosure and the openness of the public domain. By creating visual and physical connections, the courtyards behind the monumental volumes are interconnected with the street. The visitor of the promenade is thus encouraged to penetrate the intimate life of the plot and thus approach the life behind the walls, even though the visitor of the promenade is probably not allowed to access the enclosed volume. In such a way, monumental buildings are being re-integrated to the urban life, constructing the experience of an open city museum, even if their function is private and does not encourage a physical interaction with the public urban space.

On the opposite, south part of the axis (Tudelft technological park), small science galleries and outdoor encounter spaces envision to address the interaction of east and west upon the extended Oude Delft promenade and communicate the current concerns and outcomes of the main fields of research being conducted in the University. These galleries instead of simple exhibition areas mainly constitute specialized information points, bringing the visitor closer to the science and innovation achievements being in progress.

- The building

Looking through the values of the composition and the particular objectives generated by the analysis, in line with the vision for the future role of complex, a two-directional purpose lies ahead. The new life incorporated in the notion of the new function and primarily encapsulated in the used means of expression and organization of space, puts the dual objective of both easing the borders of occupation between private and public, and at the same time perpetuating the continuity of the most deeply imprinted memory of the structure. Dedicated to respect the invisible soul of the composition, the intervention strategy seeks to minimize the power of enclosure, and in the meanwhile declare the new sense of place, embodied in the meaning of a nodal point of urban life, a dynamic field of biological, social and cultural fertilization.

A public route penetrates intimacy

On the other side of the new translusion, the intervention/extractive in a new balance

The demand of re-establishing the strong connection of the intimate life of the environment with the surrounding environment becomes the ultimate objective of the intervention approach, suggesting a new access route on land instead of the old water path responsible for the first extractive identity of the composition. The public route is then incorporated to the original Oude Delft promenade, in purpose of anchoring both north and south, old and new parts of the city within the intimate life of the complex. The Oude Delft axis generates the composition passing through the northern transition courtyard, and is progressively unfolded within the volumes, as a fundamental component of the interior/intimate experience of space. The power of the new identity is demonstrated on the south, representative view of the composition, where the path extends beyond the boundaries of intuition (the walls) and constructs the extension of the Oude Delft axis and promenade, to the south part of the context area.

The gradual sequential and alternating experience of either the city or the building, not only aims to encourage their constantly mutual offering process, but also to satisfy the ultimate objective derived through the analysis, to construct a continuous experience of mutual intervention that links all the successive positions of the observer, in the three main conditions of space. From the public street, to the transition courtyards, up to the most intimate core of the enclosed volumes, the visitor of the city discovers the new intimate sense and identity of place in balance with the valuable memory of intimacy and self-protection of the composition.

Upon the decision of extending the interior intimate life of the complex, to the south by means of a projected route, an underlying intention to re-locate the old historical memory of access from the south can be revealed. The strong gesture of the prolonged axis envisions bringing back the directionality towards the building, not only by means of an architectural element, but also of a transversal agents. In such a way, monumental buildings are being re-integrated to the urban life, constructing the experience of an open city museum, even if their function is private and does not encourage a physical interaction with the public urban space.

On the other side of the axis (Tudelft technological park), small science galleries and outdoor encounter spaces envision to address the interaction of east and west upon the extended Oude Delft promenade and communicate the current concerns and outcomes of the main fields of research being conducted in the University. These galleries instead of simple exhibition areas mainly constitute specialized information points, bringing the visitor closer to the science and innovation achievements being in progress.
PROCESS

METHOD DESCRIPTION

Although primarily pertaining to the first part of the analysis, conducted within the studio with the purpose of tracing and documenting the still-existing values of the building, research is never detached from the working process. Constantly incorporated in the design, it is considered to form an indispensable methodological tool, essentially contributing to all the gradual decisions made upon the new life of the structure.

Looking through the three different dimensions of the analysis—urban, architectural and technical—and the values incorporated in all successive scales of the existing, consequential starting points can be originated, and gradually compose the essential ground of the suggested redesign concept. Permeated as the two equal sides of the same coin, programme and intervention concept are intentionally investigated in two successive scales, the large scale of the city and the context area, as well as the major building scale of the complex. The two directional investigation aims to illustrate the significant participation of the content qualities and functional organisation in the new life of the composition, and eventually initiate the reciprocal offering process between the building and the surrounding urban life (figure 1.1).

During the investigation process on the new function and the main objectives defined as the basis of my preliminary design, two reference projects inspired my vision for the new balanced identity of the complex, as well as the notion of the new function. The two case studies—the Castelvecchio Museum in Venice and the “La Maratona” Complex in Florence—comprising the main research theme of my position paper, contributed significantly to the understanding of how an intervention approach can at the same time preserve and revive the identity of intimacy and enclosure, reciprocating the demand for openness and active blending of the building with the surrounding space.

LITERATURE AND GENERAL PRACTICAL PREFERENCE

Throughout the progressive development of the graduation studio, a series of literature has been investigated, responding to my contemporary specific concerns and necessities of the research and strengthening my argumentation upon the analysis of the existing structure, as well as my re-design proposition afterwards. In accordance with the dinkers of the research, relevant case studies, references, illustrative examples have also fundamentally supported my investigation process. Both theoretical and practical associations with the wider architectural and scientific framework are and will be substantially integrated to my methodological approach, as part of the research that guides the design from the beginning to the end.

Complete record and thorough analysis of the consulted data is provided in both my Analysis and Documentation Report, my Position Paper and my Preliminary Design Paper, indicative examples of which I hereby include.

Recognising the typological features of space, as inherently involved in the definition of the intangible identity of space, typology is identified as a fundamental methodological tool. Rabel Moreno, and his article Opulencias published in 1978, provided me with a thorough perception of pertaining primarily to tangible organisational features of the structure and not to a certain morphology.

Perceiving intervention of the existing structural organisation of the building, not as an autonomous property of it but as the consequential features of a synergetic relationship with the city. Roy Worsham in his book The character of Places: an approach to conservation, has identified the components of urban space helping me to realise the terms of such an interaction.

Two reference projects, illustrative examples of the issue have been utilized as fundamental means of approaching the architectural practice of intervention on existing introvert typologies and inspiration for the own re-design strategy. The Remodelling of the Castelvecchio Museum—implemented by Carlo Scarpa in Venice (1967-1973) and the Ruse and transformation of the La Maratona Complex—by Renzo Piano in Florence (1999-2015)—constitute the subject of my Position Paper and successively translate my position to the approach of a new balance envisioned between the values of intimacy and the potential demand for a more extrovert public identity in the future.

By comprehending the organization and of the new function, the Arts, Crafts and Science laboratories, inductively associated with the notion of a museum space, as providing the visitor with a continuous routing into the building, the book Contemporary museums of Antonello Marceta published in 2018 offers an essential theoretical background of the function and supportive examples of representative Museum spaces.

With his Museum of UnWeld Growth [New York Museum of Modern Art, 1939] Le Corbusier introduces the idea of an evolutionary spiral, expressed as a constructive sequence of events developed along a routing, that enmeshes the building all over its height and can be also translated as a powerful interpretation of an introvert experience of space. This project will be further studied and form the basis of my main conceptual perception of the new life within the existing volumes.

Substantially involved in my research on construction and materialisation of the existing, the documentation made by the Dutch Rijk Department of Building Construction in 1962, will also provide till the end, the basis of a respectful intervention on the existing structure in relation with the new parts. Further literature regarding the relevant typologies and textures of construction, can also offer a thorough understanding on the details of the existing. By combining the observation data and my own diagnosis for the current observed damages of the structure, an essential provision plan, including the appropriate suggested treatment or general approach of the problem sources, is also posed as one of the main concerns of the current graduation project.

THE CITY/CONTEXT

PROPOSAL urban scale

REDESIGN CONCEPT

THE BUILDING/STATEMENT

PROPOSAL building scale

ANALYSIS

ARCHITECTURAL

TECHNICAL

values

starting points

values

starting points

values

starting points

values

- programme

- intervention

THE METHODOLOGICAL APPROACH

REFLECTION

RELEVANCE

Throughout the main focus and concern of the current graduation project, my overall intention to investigate, designate and illuminate the terms and conditions that bond a building with the surrounding space is demonstrated. The contrapositional relationship of intervention/extension, even though intrinsically connected with the dominant features of the self-orientated structure, exceeds its relevance beyond the specificity of the current project. Seeming for the unavoidable appropriate balance between old and new, the approach poses the generic question of how the intangible identity of every existing shell needs to be reconsidered and redefined, in order to resolve the new life and engage the terms of an improved relation with the surrounding urban space.

From the slight interventions on monumental territories of the historical urban fabric, envisioning to bridge the distance between private and public and the recreational encounter areas focused to suggest an improved quality of physical social fermentation, up to the challenging treatment of the existing complex, one dominant intention underlies and directs the research. The necessity for a new definition on the bonding system of the city, seeks for a sufficient response.

Buildings of historical, cultural and social significance usually keep within their protected intangibility values hidden, totally detached from the experience of the city. Monuments that fall into isolation and consequent deprecation are buildings that have gradually totally lost their relationship with the urban life. By re-inserting thus the interaction between a part of the intense context (the courtyard becomes one suggested territory that opens up to the city) of the existing and the experience of the observer in the public space, pieces of collective memory are reconstructed and given back to the city.

Intervention and extension are for the current research, terms able to define the relations developed among the three spatial territories of the urban space, from the public to the most private context of the “life behind the walls”. The understanding of their meaning should not only be perceived as a specific concern of the report but form essential awareness for everyone that decides upon the new life of an existing structure. Every intervention applied on a historical building leads unquestionably to the new balance, derived from the bonding structure between old and new. Comprehending as a major underlying objective of the approach, the need to prolong the life of the existing to every possible extent, the new identity of the structure, should primarily demonstrate the aforementioned demand.

In that sense, only when the new identity expressing the balance, between old and new, private and public, intervention and extension aims to improve the offering process between the building and the city, the sustainable, perpetual existence of the composition as an indispensable component of the urban life can be substantially materialised.
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**GRADUATION PLAN**

- **U/San** [past/present/future]
- **Architectural** [past/present/future]
- **Technical** [past/present/future]
- **conclusions/ initial assessment/ reflection**
- **thematic research**
- **problem statement**
- **research question**
- **objectives**

**P1 presentation**

- **Reference Projects**
- **Research outcome**
  - starting points
  - problem statement
  - objectives
- **Program/Design**
  - Concept 1.100
  - Urban plan 1.500
  - Building plan 1.500
  - Physical model 1.500
- **plans/sections/sections 1.500**

**P2 presentation**

- **Final design**
  - Urban/Architectural
    - plans/layout/sections 1.500
    - physical model 1.500
  - Technical
    - detailing and zinc 1.256/1.25
    - drawings precision 1.25

**Synthesis/presentation**

**P3 presentation**

- **worked out**
  - final design
  - Urban/Architectural
    - Technical
      - Drawings/Overview
      - model 1.100
      - elevations 1.500
      - Sections/Overview

**P4 presentation**

- **worked out**

**P5 presentation**

- **Synthesis/presentation**
INTRODUCTION

“All continuity of history means is after all perpetual change, and it is not hard to see that we have changed with vengeance, and thereby established our claim to be the continuers of history.”

William Morris

Subjected to the influence of a permanent change, perceived as the transition from past to present and future, our cities form the product of a transformation process, constantly imposed on built and open space. All over this persistent succession of old and new, continuity arises as the demand for a balanced transition from one to the other, able to consolidate the coherency of a well bonded urban architectural environment. Excluding the independent components of change that uncontrollably act in terms of a natural aging process, a considerable piece of this procedure lies in our hands. When deciding upon the operation on an existing structure, we (the architects) become the driving force of continuity, incorporating in the approach not only our thorough understanding of old and new, but also our position across the notion of a coherent urban structure.

Anne-Catrin Schultz, in her book about the phenomenon of layering appearing in the architectural practice of Carlo Scarpa, examines how an intervention strategy not only becomes a narrative of the history and typology of a building, but also redefine the relation of the building with the existing typology. Not only should it aim to discover and respect the tangible and intangible values, hidden behind the existing typology of the building, but also redefine the relation of the building with the public domain.

Respecting the values, involves the hard process of recording and comprehending the pieces composing the material and immaterial substance of the existing, either visible or needed to be revealed. Sometimes also, discovering invisible aspects is not enough, and a further task of re-establishing their presence and meaning in the integral composition lies ahead. Simultaneously, through the notion of the intervention approach and the nature of the new function, the desired integration of the building within the urban environment, could and should be achieved.

Only by tracing and operating on both aforementioned levels a change that naturally serves continuity can be established.

THE RESEARCH QUESTION

Assessing the importance of a bidirectional relationship developed between each individual existing structure and its urban environment, it is to my conviction that every intervention approach carries the purpose of a twofold meaning. Not only should it aim to discover and respect the tangible and intangible values, hidden behind the existing typology of the building, but also redefine the relation of the building with the public domain.

Within the context of the MSc R-MIT Graduation Studio, the Armamentarium Complex in Delft, constituting a currently empty shell, is being researched as a durable architectural expression able to embrace the demands of a new life in the future. Throughout the transformation process affecting the functional identity of the composition over the years, a strong memory arises, in depth impregnated to the tangible skin of the structure. The specificity of the setting, typology and facades, powerfully demonstrate an essence of intimacy and self-orientation. This introvert identity is thus regarded as the dominant feature of space, through which the integral comprehending of the inherited values of the structure should be implemented.

Upon the acceptance of the previously described two fold purpose of an intervention strategy and the challenging task posed by the existing typology, the focus question of the following research lies.

“How could intervention practice establish the balance between introvert building typologies, and the potential demand for a more extrovert public identity in the future?”

METHODOLOGICAL APPROACH

In line with the premises and visions of the R-MIT Studio, Research and Design, are continuously intertwined in the exploration strategy. By setting the implications of a certain intervention approach upon its dynamic relevance with the wider spectrum of architectural history and practice, research is defined as the necessary tool for exploring the potentials of the assignment, constantly involved in the redesign process, from the beginning to the end.

Two case studies, briefly described subsequently illustrate the structure and the notion of the research conducted, within the framework of the studio, while at the same time form a useful basis of information in response to the concerns of the research question. The objective of the current investigation, instead of attempting any implicit generalization of the knowledge observed, is to give insight to specific possible ways in which architecture can at the same time preserve and reverse the identity of intimacy and enclosure, reciprocating to the demand for openness and active blending of the building with the surrounding space.

Recognizing the typological features of space, as inherently involved in the definition of the introvert identity of a certain architectural expression, Typology is identified as a fundamental methodological tool. According to Rafael Moneo, the type inscribes a group of structural features that define and distinguish the individual identity of a certain architectural object. In line with the approach of the definition by Mies van der Rohe, the notion of type, as confronted through the current research, encapsulates the intangible features of space perceived as indispensable components of the structure, instead of pertaining to a group of morphological characteristics.
Kevin Lynch, departing from his perception of the city as a sequence of events, illustrates how the relevant position of the observer and thus the experience of space changes gradually as he circulates within the urban environment\(^1\). In a similar approach, regarding the layers of space composing the investigated building type, a division among the successive positions of the observer aims to explore the different perspectives of space, and discover how the intervention strategy has affected the integral identity of the composition. The “observer” forms in a consequent reflection of the term, the vehicle which the reader of the research can be experimentally involved in the observation process, as if he could approach the space by himself. Threora, captured in the observations derived from the analysis, envisions through this specific methodological tool, to receive the notion of the ancient Greek perception of the term, *Theora*, stimulating the "active contemplation" on the building and its identity, instead of a "passive reception" of the features defining the space\(^2\).

My overall methodological approach lies therefore, between the observation practice and the notion of qualitative research, involving both an analysis of the following building examples and a subjective, critical interpretation of space. Even though, objectivity appears almost unattainable, personal elements will not be intentionally included in the process. Contrarily, it is my own conviction that experiential involvement of the observer always stimulates the effectiveness of the process and reveals values that a distant, objective observation strategy could never approach. Although primarily pertaining to the first part of the analysis, conducted within the studio with the purpose of tracing and documenting the still existing values of the building, research is never detached from the working process. Constantly incorporated in the design, it is considered to form an indispensable methodological tool, essentially contributing to all the gradual decisions made upon the new life of the structure.

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3. Jean-François Chevrier, Territorial Intimacy and Public Space. Jou de Paume trade magazine [magazine jdpauvme.org]

CASE STUDIES

With respect to the designation of a new balanced identity, endeavoring to merge old and new, intimacy and self-orientation are in both case studies redefined, so as to express the new attempted blending of the building with the public domain. Although a comparative analysis of the examples is not intended, it is interesting to observe how the two opposing destinations of the new function, holding public or private features, corresponds with a diverse experience of space, encapsulated in the more introvert or extrovert identity of the composition.

Remodeling of Castelvecchio Museum_Carlo Scarpa_Verona [1957-1978]

Restoration works on the Castelvecchio Museum, conducted within the period of 1757-1973 by the Italian architect Carlo Scarpa. Demonstrated as a composition of memories, the new identity reflected on space revolves around the several layers of history deposited on the structure and becomes the narrative of the past. The new, perceived as an additional layer, derives from the old, through a process of birth and dialogue created in between consolidates the balanced transition from one to the other.

Initially constructed in 1304 upon the walls of the city, to defend against the citizens in times of revolt, the composition gradually acquires the features of a totally self-oriented space. The contradicting destination of the first function, poses the challenge of the new identity. How a place that has meant to form a strong barrier of isolation against the city can now demonstrate the meaning of a public content, as a new vital piece of the urban life?

The observer approaching the complex

The strict, heavy barriers of intimacy and enclosure, surrounding and defining the borders of the composition (moat, water and walls) still construct the introvert impression of the typology, demonstrating the original destination and meaning of the place. However, a sensitive gesture slightly points out the new life, without disturbing the coherent exterior impression. The communal wall, forming the first border of isolation, now receives a totally reversed meaning. A public route, developed along the wall, penetrates the intimacy of the ensemble and defines one of the two main entrances. Upon this alternation of meaning, the new dialogue of the building with the city initiates, preparing the visitor for the experience of the still invisible content behind the walls.

The observer in the courtyard

Serving as the preparatory element, the courtyard acts as the connecting space between the life of the city and the intimate world of the museum. Through the use of layers, both by means of spatial sequence and materiality, Scarpa achieves to enhance the intimacy of the typology or at the same time demonstrate a more introvert impression. The division of the courtyard in different successive zones of privacy, results in the gradual approach of the entrance, attempting this way to respect with sensitivity the intimacy of space.

On the other hand, gradation in the use of materials, from rough to delicate, accentuates the role of the final destination encouraging the visitor to walk inside.

Upon the representative facade of the courtyard, introversion is totally reversed. The new glazing screen added a step behind the surface of the wall, transposes the inner content a step deeper from the existing border of enclosure. The entrance is thus, dramatically enhanced by the accentuated depth of the wall. Through the use of the screen and by segregating the layers of materials composing the facade, the heavy impression of the wall is replaced by a light, almost insubstantial entity. The border of enclosure is no longer experienced as a barrier of interaction but as a thin filter, encouraging the dialogue between the inside and outside.

The layer consequently, as constructive tool of space, not only becomes a narrative of history, but even more, by revealing and exposing, aims to reverse the obscure identity of the composition, and initiate a strong interaction with the city.

The observer inside

Despite the dominant introvert impression of the courtyard, the visitor that enters the enclosed volume experiences the opposite enhanced intimate essence of the composition. Visual intersections encouraged among the statues of the ground floor gallery, along with the high walls of the windows, enhance the concentration within the enclosed volume. Through the emotional interaction of the exposition objects, intimacy is almost dramatized constructing a clearly self-oriented experience of space.

Renzio Piano in 1998 is committed with the challenge of converting a place-symbol of imprisonment and isolation to an integrated piece of the urban life. The complex, built in 1424, functioning initially as a convent, and later on as a jail, has been steadily proving its name as a naturally self-oriented “walled” enclave of life. Despite the dominant private identity of the new housing function, the typological treatment of built volumes around open intimate courtyards constructs the introvert character of the composition.

The observer approaching the complex

The exterior surrounding borders of isolation, constructing the four sides of the complex, still demonstrate the original destination and introvert meaning of the composition. Despite the first impression, a public route penetrating the main open courtyard, connects the two sides of the plot and marks the blending of the intimacy with the public life of the city. The visitor is by this major gesture attracted to experience the most projected core of privacy. This centrally positioned open space encapsulates, thus, the purpose of activating the dialogue in between inside and outside and establishing their vital connection for the first time.

The observer in the courtyard

Upon the main facades surrounding the courtyard, a strong interaction of enclosure and open space is implemented. Either by means of projected balconies, or enclosed boxes, the private life behind (the walls) extends dynamically to participate in the communal life of the city. Through the new introvert identity of space reflected in the courtyard, the meaningful transition from the former enclosure of social isolation to a place of freedom and communal life is powerfully demonstrated.

The observer inside

Indicative observations on one of the main buildings inscribing the courtyard, illustrate the strong intention of Piano to reverse the totally introvert essence remained from the former prison cells. By removing the cover surface of the roof construction, bright light is diffused all over the central corridor area, alternating completely the identity of a major communal space for the apartments. Penetrating further to the private parts, projection of life towards the courtyard (in terms of enclosed boxes hanging on the facade), apart from offering additional living space, highlights the new dominantly introvert impression of the enclosure.

CONCLUSIONS

Through the aforementioned short analysis of the two examples, and by comprehending the specificity of the approaches presented, neither a comparative perception of them nor a generalization of the knowledge observed is intended. Broad conclusions can be however extracted, regarding the guiding theme of the research as well as the efficiency of the methodological approach.

Following the successive positions of “the observer”, variations in the identity of the composition can be revealed, ascertaining this way the necessity of the methodological tool. Although the different perspectives are intrinsically related to each other and cannot be regarded independently, they can illuminate several territories of introversion/extroversion, diversifying the indoor or outdoor experience of what is considered to be the delimited protected content of the composition. The courtyard is in both examples revealed as a capacitor of communal life, implementing the relation of the building with the public domain. The interior space, although intuitively perceived as the most intimate territory, can also demonstrate extroversion, opposing to the notion of the private function accommodated.

Throughout the investigation process, introversion and extroversion, even though perceived only by means of spatial experience, are intentionally associated with fundamental architectural features of space. Beyond the specific concerns of the theme, in correspondence with the problem stated by the studio, the process of investigating the introvert or extrovert aspects of spatial experience is identified as a generic methodological tool for every intervention approach. By revealing the subtleties defining the relation of internal and external territories of space, the perception of the building as a substantially integrated part of the urban domain is encouraged, constructing the basis for its primary social sustainable existence in the future.

Taking under consideration all the above dimensions indubitably associated with the designation of a new life for the Armamentarium Complex, all successive positions of the observer will equally participate in the perception of the new experience of space, gradually constructed from the urban domain up to the most intimate layers of the composition. The new life incorporated in the notion of the new function and primarily encapsulated in the used means of expression and organization of space, posts the dual objective of both erasing the borders of isolation between private and public, and at the same time perpetuating the continuity of the most deeply imprinted memory of the structure. Dedicated to respect the invisible seal of the composition, the intervention strategy seeks to reinstate the power of enclosure, and in the meanwhile declaring the new sense of place, embodied in the meaning of a modal point of urban life, a dynamic field of ideological, social and cultural fermentation.

LITERATURE

THE OBSERVER APPROACHING THE COMPLEX

from the ultimate barrier of introversion

to the entrance path and a through-going public route

strong barriers of enclosure are not disturbed introversion.

North


South exterior impression

(source: http://www.venetiancommission.org)

Organization of built and open space
THE OBSERVER IN THE COURTYARD

-typology-

from public to more intimate, gradual visual and physical access

from rough to delicate, materials guide the visitor to the entrance of the enclosure

(source: Drawing based on the book of Richard Murphy, Carlo Scarpa and Castelvecchio, 1990, edited by the author)
THE OBSERVER IN THE COURTYARD

-the facade

[Source: Book of Richard Murphy, Carlo Scarpa and Castellovecchio, 1996]

[Source: http://loubekdesignresearch.com]

[Source: http://www.entropy-art.com]

Detouchment from the commune wall

[Source: Drawing based on the book of Richard Murphy, Carlo Scarpa and Castellovecchio, 1990, edited by the author]

The dominant new screen

Entrance transposed to the corner, symmetry reversed

Northern courtyard facade
THE OBSERVER INSIDE

Ground floor interior
Statues visual intersections

(source: drawing based on the book of Richard Murphy, Carlo Scarpa and Carlo Mennici, 1990; defined by the author)
THE OBSERVER APPROACHING THE COMPLEX

Organization of built and open space
THE OBSERVER IN THE COURTYARD

typology

the public route

section A-A

Scans, Drawings and photos derived from the Nixon Project on Mixed Transformation of Social Function into a Place of Life and Society, conducted by Eliza Koutoufi for the National Technical University of Athens, edited by the author.

Piazza Madonna della Neve

Piazza delle Murate
THE OBSERVER IN THE COURTYARD

- Facade

Source: Drawings and photos derived from the Mouse Project "The Mouse: Transformation of Social Relations into a Mouse," conducted by Olga Kouroutzoglou for the National Technical University of Athens, edited by the author.
THE OBSERVER INSIDE

Interior axial corridor

the public route

Apartments, interior space

Projected spaces
ACKNOWLEDGMENTS

My sincere gratefulness undoubtedly belongs to the people standing next to my laborious last year journey, my tutors Arnold Hermkens, Wido Quist and H. Zijlstra, kindly enduring my weaknesses, as well as always upholding and encouraging my goals. Their contribution and knowledge will steadily follow my future challenges and pursuits.

ARMAMENTARIUM

"From the isolated enclave to the intimate place of social life and creativity/history and innovation"