westminster city TALL

GRADUATION PLAN // P2 // JANUARY 2012
TU DELFT // MSc3 // Graduation project TALL

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**PERSONAL INFORMATION**

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**STUDIO**

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<td>TEACHERS: Rob Bollen</td>
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**ARGUMENTATION OF CHOICE OF THE STUDIO:** In order to obtain knowledge of designing a high-rise building within all parameters which is the best solution for land scarcity in metropolitan areas and its high value, intensifying land use in order to achieve maximum sustainability and revitalization of dense urban areas. In addition, high-rise buildings are urban landmarks with significant branding and commercial capacity. Coming from a country (Greece) where skyscrapers are a taboo, the opportunity to receive this elaborate architectural knowledge is unique and invaluable.

**TITLE OF THE GRADUATION PROJECT:** Westminster City Tall
Introduction

The site for the graduation project is the area around the Westminster City Hall in London, which is one of the most successful areas. Due to the fact that most of London, e.g. Prince Charles, hates towers it is becoming almost impossible to build them. However there exist a fair number of tall buildings from the 50’s and 60’s that need massive upgrades. If one were to demolish them they would only get planning permission to develop a new building at half the height. Therefore preserving the tower becomes the only way to build a new ‘tower’. We are choosing not to ‘preserve’ an entire era, due to its lack of popularity. Mid-century modernism is perhaps the most important yet most hated era of contemporary architecture. If the conservation policy has its way, this entire era will be erased from history. Part of the P1 was to examine the site and determine which buildings to keep, remove and what to add to the WCH and how to deal with the sensitive view. Preservation is the critical component of the studio and became the very actual theme of the proposed project named Westminster City TALL (or how the Westminster City Hall became TALL). A skyscraper may have a strong aura, but its effect on the urban condition is usually negative: being a solitary type with most of its life taking place inside, it rarely contributes to the energy and richness of urban life. The intent of the High-rise workshop is to re-imagine the “next” skyscraper, not only in an architectural and technical sense, but also in an urban sense. According to the theme of the workshop, the team tried to develop a tower that did not merely serve as an artificial and detached icon, but engaged the city and served more as catalyst for positive growth. Yet, due to lack of time not all aspects were fully developed; on the following semester, I am given the opportunity to make a more elaborate research and take the project several steps further. The tower must evolve, as architects must reinvent the Urban Condition for the 21st Century.

From the P1’s Westminster City TALL I summed up three positive and three negative points of the project:

POSITIVE POINTS:
- PRESERVATION: All three buildings of the theme are being preserved. This way the 1960’s are kept alive.
- URBAN IMPACT: The image of the city is not altered. As the footprint and the mass of the buildings do not change, the impact of the intervention requires less adjustment from the citizens.
- CONCEPT: Simple, solid, ambitious. Doubling the height of the existing WCH by placing a new similar built volume above is challenging and subtle suggestion of how to respect the past, preserve it and combine it with the high-rise requirements.

NEGATIVE POINTS:
- PUBLIC REALM: The existing situation of Victoria Street as a busy narrow street is also being preserved and apart from the larger pavements there is not any new public space introduced for the pedestrians. The lifted plaza over the KGH is semi private and has limited accessibility.
- LIMITED FLEXIBILITY: By preserving the existing buildings, their problematic (or at least less flexible) structure is also being preserved. Therefore, by trying to introduce new program into the old building, the structure grid causes several limitations instead of having a new, typical, floorplan.
- HIGHER BUDGET: Preservation vs Demolition: Preserving an old building is not always practical or economical. The façade/structure refurbishments will require bigger budget.

Continuing the project I will try to keep us many positive points as possible and simultaneously to eliminate the negative ones. In order to achieve I will form a main research question.
Product

PROBLEM STATEMENT

The vast majority of towers - office or residential - are consisted of a group surfaces stacked around a central core. The last two decades architects try to rethink and reinvent the role of the high-rise building type resulting into innovative exterior designs of the towers, yet they keep neglecting the public space on the ground level around the tower. As this non-designed piece of land is strictly related to high-rise buildings more than any other low/mid rise building typology.

RESEARCH QUESTION

In this graduation project my research question will be how to create a better connection between the tower and its urban fabric, integrating it with the street level, in order to reflect the nature and interact with all levels of the city in which they are built.

AMBITION

The main goal of this graduation project can be divided in three main approaches:

Preservation of the high-rise landmark Westminster City Hall. From the three typologically same buildings of the plot it is highly important to preserve at last the WCH which height and displacement is of historical importance. There will be an effort to keep the 1960's alive by the restoration of the existing building and by the preservation of the image of the city in the specific point by keeping the urban impact of the demolished KGH (linear wall-alike building form along Victoria Street).

Empowering vertical significance of WCH by doubling its height. This way the skyline of London will change dramatically obtaining one more vertical landmark. The total height of 150-160m will make it the tallest building in the area and one of the tallest in London.

Creation of an open space on the ground level that will be used as a public plaza and an entrance to the new building complex. The area of Westminster is highly dense and there is a lack of public spaces. Even if one can spot there some open squares, the majority of them are not designed and consist of plain open spaces where the absence of basic infrastructure (like benches) is noticeable.

My ambition is to create a building complex in the heart of London which will combine public space, high-rise building, restoration of the 1960's legacy buildings and will result to dilution of the urban tissue, without distorting the image of the city. Since the plot is located next to a very busy street (Victoria Street) with a lot of traffic noise, the urban plaza to be created should somehow be distinct and isolated. This could be achieved with a height difference; either to place the plaza on lifted volume and create a podium for the high-rise building or dig into the plot and create a below street-level plaza. In the first case the creation of the podium does not offer any solution to the dense built context and also creates a non-inviting “obstacle” which is not easily accessible. In the second case, the earth recess subconsciously invites visitors to explore the square and provides a far more quiet and isolate place to relax even next to the noisy Victoria Street.

In addition the design research will be targeted in seeking innovative solutions to exploit the layers under the ground level, by exoneration of the term “underground” that will provide great opportunities to inhabitate the earth palimpsest.
Process

METHOD DESCRIPTION

- An urban analysis of the area is the first step. Programmatic requirements of the area, infrastructure necessities and current problems will occur from this analysis.
- According to real-estate principals each program will be placed in the right point of access within the area.
- The Westminster City Hall is going to be preserved, restored and integrated within the total intervention. The restoration will be organised under the scope of maximum sustainability.
- Punctual strategic interventions will be proposed in order to achieve dilution of the dense urban tissue:
  1) Creation of a below-zero square in four levels that will contain program on the sides and will provide an isolate safe, quiet urban space next to the noisy Victoria Street. This way the tunnels of the underground will now float in the air providing an interactive, spectacular view of the square for visitors and travellers.
  2) Creation of a metro station in the North-western corner of the WCH. It will be a sub-surface station with a double side platform for both Circle and District lines that pass underneath the plot. This intervention aims to attract more people in the area and direct them towards the leisure/retail that will be placed as part of the program. It will also be an extra selling feature for the future inhabitants of the households that will be placed in the building complex.
  3) Demolition of the existing worn-out Kingsgate House and Rebuilding of it after Relocation and Integration with the New concept. The new KGH will now be equally linear and slender, preserving with this way the displacement of the former building, but it will be taller, curved and less solid (fragmented volume) in order to allow more sunlight to pass to the buildings located in the northern side of it.
- Research on sustainability will enhance the efficiency of the project in long terms. Smart and bioclimatic solutions will be applied on the facades of the buildings in order to have energy productive building with fewer emissions.
- Target is to achieve maximum sustainability and spatial quality for the public realm as long as innovation in the high-rise building design and urban revitalization of the area.
LITERATURE and GENERAL PRACTICAL REFERENCE

BOOKS:

WEBSITES, BLOGS & PORTALS:

http://www.ctbuh.org/
http://sites.google.com/site/tallhighrise/
http://ennead.com/#/projects/the-standard-new-york
http://www.archdaily.com/156357/the-earthscraper-bnkrr-arquitectura/
http://www.ecomagination.com/earthscraper-concept-takes-sustainable-design-underground
http://www.architizer.com/en_us/
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www.royalparks.org.uk/parks/st_james_park/about.cfm
http://www.royalparks.org.uk/parks/green_park/about.cfm
http://en.wikipedia.org/wiki/St_James%27s_Park_tube_station
http://www.transfers-in-london.com/london-underground.html
http://www.trainweb.org/tubeprune/Statistics.htm
TIME PLANNING

24 - 01 - 2012 : P2

WEEK 7-33: 6 MONTHS BREAK FOR INTERNSHIP. EVERY THREE WEEKS ONE MEETING WITH TUTOR FOR UPDATING THE PROJECT.

WEEK 36-40 (SEPTEMBER 2012): RESUME PROJECT. DECISIONS/CHANGES ON PROJECT AFTER P2 FEEDBACK. PARALLEL MEETINGS (ONCE A WEEK) WITH BUILDING TECHNOLOGY ADVISOR. FINALISING PLANS FAÇADES BY BEGINNING OF OCTOBER. DETAILING AND ISSUES OF MATERIALIZATION. UPSIZE IN SCALE. URBAN PROBLEMS SOLVING IN 1:200/1:100. DETAILING IN 1:50/1:20/1:5. FAÇADE ELEMENTS DESIGN.

WEEK 40-42: P3

WEEK 42-46: CONSTRUCTIVE CRITIQUE AND FEEDBACK OF P3 APPLIED IN PROJECT. NEW DECISIONS, SOLVING PROBLEMS, CONTINUE RESEARCH ON SUSTAINABILITY. PREPARE SEMI-FINAL MODELS AND PRESENTATION (OCTOBER-NOVEMBER).

WEEK 46-48: BEGIN PRESENTATION, DECISIONS ON MODELS, GRAPHIC MATERIAL AND DRAWINGS. RENDERS.

WEEK 49-50: P4 (MID/END DECEMBER)

WEEK 51-52: FINALIZE DESIGNS, CHANGE SMALL DETAILS, PREPARE TEXTS AND FINAL PRESENTATION.

WEEK 1 (2013): FINAL MODELS (CNC/LASERCUT/3D PRINT) & SLIDESHOW TEMPLATE

WEEK 2: PRESENTATION SLIDESHOW & TEXT READY ONE WEEK BEFORE P5. LAST WEEK, ORGANISE POSTERS & MODELS, PRESENTATION REHEARSALS.

WEEK 3-5: P5 (GRADUATION)
westminster city TALL

CHANGE THE SKYLINE OF LONDON BUT KEEP THE 1960’S ALIVE!

TALL GRADUATION PLAN (P2) by LAERTIS-ANTONIOS VASSILIOUTU
TU DELFT_FACULTY of ARCHITECTURE_JANUARY 2012