



## NOTES

**1**  
**CHOOSE BETWEEN ONE**  
of three sites in Frankfurt.

**2**  
**WORK IN GROUPS TO**  
organise the site analyses and do  
the site model.

**3**  
**AVOID ALL CLICHÉS**  
with respect to building  
programme and typology.

**4**  
**PLAN YOUR WORK BY**  
carefully working out a schedule  
and your plan of deliveries.

**5**  
**WORK INTENSELY TO**  
develop your thesis content as  
the basis for your proposal.

**6**  
**NOTE ALL DEADLINES**  
including the dates that will be  
given for completion of sub-sets  
of the documentation.

**7**  
**RESEARCH AND USE**  
architectural theory and history  
for your understanding of the  
high-rise typology.

### DIPLOMA THESIS BRIEF

## HIGH-RISE HYBRIDS for the 21st century

### *one*

#### Introduction

This year's Diploma Thesis brief addresses the high-rise or skyscraper typology in an urban setting. The brief calls for daring revisions of this typology based on hybrid and integrated architectural programmes. The brief presents three optional sites in Frankfurt am Main, the European city that has most clearly and strongly subscribed to the high-rise typology as part of its recent development and post-war reconstruction.

The current status of high-rises, in part fuelled by developments in the near and far East and in part by ever-mounting pressures on scarce inner-city areas, begs a re-examination of the building typology in general. One reason for this is the often discredited history of much post-war urban development, not the least that in housing.

The Diploma Thesis brief of 2008 asks: How can we remodel the typology of the high-rise considering any set of contemporary needs, currents and requirements to urban development in general and the development in Frankfurt in particular. Such considerations would include functional area optimisation, strategies for sustainable construction and use, energy efficiency, a strong design profile and identity in relation to capital investment and market interests, as well as any number of other considerations pending the specific programme and site of the building.

One consideration presents itself as particular potent with respect to a critical examination of the high-rise typology and its current role in urban development. That is the role of the building programme. In order to break with conventional planning and design of high-rises, you are asked to define and propose an integrated and hybrid programme for your proposal. One part of this architectural programme must accommodate an institutional function. The brief is based on the hypothesis that a far-reaching engagement with an institutional programme in conjunction with another, related type of programme presents the possibility to rethink the role and function of the high-rise, both on a formal and a practical level.

### *two*

#### High-Rises in Frankfurt am Main

In the post-war era, Frankfurt am Main has developed a unique European identity with its skyline of high-rises. These buildings comprise first and foremost headquarters and offices for the city's numerous banks and financial institutions – the most famous examples being the towers for the existing and planned European Central Bank (ECB)



Student art work from Rundgang 2008

and Norman Foster's Commerzbank. Others and less numerous examples can be found for other office functions and housing. Every day, thousands of people find their way to these office buildings to work. At night, lit windows and floors, commercial signs and logos hover over the city and partly fill the sky. On weekends thousands of square metres stand empty. These high-rises can be seen to house and embody a programmatic formula that comprises offices and, in some cases, commercial functions on the lower, street-near levels. The prospect of rethinking the role of the high-rise in the city other than following this programmatic formula may contribute to reinvigorate city life and local zones within it.

While high-rises in European cities remain a controversial in public debates about planning, in Frankfurt they also represent an integrated part of the city's post-war identity. Vulnerable to the ups-and-downs of the real estate market, these buildings continue to represent visions of urban densification, efficiency and modernity. Not the least, individually and collectively they seek to lend a strong visual mark and identity for the main inhabitants and the city in general.

And yet, in Europe as much as in Frankfurt, the high-rises retain a controversial status in public debate. Do the advantages that these buildings offer compensate for the many negative effects that they have or are assumed to have? Do they dwarf the citizens and social life with their long shadows and in how they remove their inner workings from the streets where people move and live? And is not their very existence, based on 19th century industrialisation and post-war economic optimism, cast in doubt by the many forms of economic, social and environmental crisis that have fallen upon Western civilisation?

Against this background, we invite you to rethink the typology and role of the urban high-rise in an innovative and daring fashion, reflecting the full impact that these buildings may have on socio-economic and cultural urban field.

### *three*

## **The General Problem of Programming & Design**

Ever since the emergence of high rise construction in the US and Europe around 1900, these buildings have represented effectiveness and economic progress. Retail, office and accommodation have been optimised according to maximum net floor efficiency. Below the secluded rising floors, public or semi-public functions have sometimes been accommodated, but – apart from standard hotel lobbies and retail areas, rarely with a wider and more penetrating social and cultural intent. The high-rise has remained off limits for the promotion of civic and public life in the form of a wider cultural engagement.

Yet, the high-rise presents an urban field that rises above the zero-level. It demands the organisation of an urban field that could retain the richness and complexity of the urban fabric as this spreads out horizontally through the city. Lacking this richness, the general high-rise consists of stacked levels, one more or less equal to every other. Major inventions in terms of high-rise planning, such as in the Commerzbank in Frankfurt, includes a series of internal gardens. But around them, a conventional office typology remains distributed throughout the different floors; it may be seen as little different than the mall organisation raised vertically.

This more or less fixed range of programmes has come to define the limit of how the typology itself can be imagined and designed. In order to attempt to break this status quo, you are asked to develop an inventive set of programmes that work in an integrated manner with one another and allow you to proceed in an open design manner towards the formal solution. This may include your conceiving of the high-rise organised in a new and inventive way. The design of the building should eschew a simple "extrusion" of a form (whether rectangular or curvaceous in silhouette) and the equal distribution of floors or levels within a fixed envelope. It needs to question the rigidity of core and skin and altogether challenge that a high-rise simply extends vertically without a dramatic intercourse of hybrid programme sets with formal, geometric design solutions.

*four***Principal Design Considerations**

In the development of your proposal, we expect that you include consideration of the following issues and document satisfactory answers to each:

- Structural solution with appropriate detailing and specification,
- Basic idea of construction,
- Question of core,
- Skin & façade solution with appropriate detailing and specification,
- Ventilation and technical installations (including lifts),
- Hybrid programme solution with appropriate detailing of how the programme units relate to one another,
- Distribution and organisation of public areas,
- Open spaces and landscaping around (and in?) the building,
- Pedestrian traffic and circulation to, around and in the building,
- Vehicle traffic and parking.
- Orientation on site with respect to surroundings and principle orientation.

Additional documents and models are allowed. For instance, you are encouraged to continue to develop your strategic design models and to include these when appropriate in the final presentation.

The list will be further specified in the coming period. This includes specification from the guest professors in engineering for the structural design solutions. All necessary site documentation must be retained by you. Work in groups according to choice of site. Preliminary site documentation is provided courtesy of professor Jochem Jourdan.

General site models and analysis can be done group-wise.

The graphic documents are to be printed on A1 or A0 sheets and presented at the final jury in mid-July.

Deadlines for various hand-ins will be given in due time.

Failure to submit any of the required documents or models automatically leads to disqualification from presenting in July. In this case, an alternative date in autumn will be scheduled by the school administration.

*five***Preliminary List of Deliverables**

Your design solution must be documented with the following:

- Physical site model – Scale 1:500.
- Physical building model – Scale 1:200.
- Physical detail model – Scale 1:50 to 1:20 (also to satisfy structural design study).
- Site drawing, Scale 1:500.
- Plans – Scale 1:200.
- Sections – Scale 1:200.
- Minimum one plan and one section showing the structural design solution.
- Drawings and diagrams documenting your proposal for the hybrid programme.
- Minimum three perspective drawings/renderings from computer model.

Frankfurt, 17.02.2008.

**SITE | I**  
**“DEGUSSA” SITE**

The “Degussa” site is located on the north side of the river, just across from the Untermainbrücke. The existing building fabric can be ignored. The site is large and demands a thorough consideration with a programme much larger than that of a single high-rise. One existing plan suggests two such buildings with additional smaller ones organised between. The same plan also has an internal street, built as an extension of the existing, historical one to the east. The site is complex with respect to infrastructure and the required connections that must be provided for. In terms of massing, the proposal presented for the site in July last year should not be taken as an example of what to do.



## SITE | 2 “SENCKENBERG” SITE

The “Senckenberg” site is located between the north-western part of the fair and the Senckenberg museum. It can be linked to the move of the university in Frankfurt which releases large areas in Bockenheim for new development and use. The site is very “urban” and presents opportunities to integrate function and use with the excellent Senckenberg museum, the surrounding hotels, the fair and the inner-city structure. The development of the site with high-rises has been seen as the completion of Frankfurt’s high-rise fabric to the north-west. Currently the site includes green areas that can be related to the green areas of the surrounding traffic system.



**SITE | 3**  
**“ECB” SITE**

The “ECB” site is located along the river, on the peninsula that stretches from the east harbour, close to the planned ECB. Today, the Honsell Straße reaches the peninsula from the north; this street is planned for extension with a new bridge across the river to the south. The site will be part of a major development anticipated in this area of Frankfurt due to the new ECB. Its “nice” location belies the difficulty in proposing a vital building structure and programme that avoids being banal and cliché. Its prominence in the city and river-scape demands a careful consideration of programme as service to the public. The building proposal cannot be for a new museum.

