

Reflection Graduation 2013-14 – A transformable Olympic stadium in Øresund, Denmark

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In this reflection I will look back on the graduation project; the approach, the product, a shorter discussion of the role of the architect while designing on the biggest scale, a mega-structure, bigness and the process.

This research and design grasps this specific moment in time of economical recession, with focus on decreasing unnecessary expenses and minimize waste. Developments driven on demands become more and more important, which also counts for the IOC and Olympic candidate cities. Future host cities want more control over their investments and to prevent newly built infrastructure, venues and from falling into decay.

From the start of the project, was it clear that in order to have the time needed for testing the research hypothesis and designing the architectural part, was it necessary to make certain shortcuts. The subject of the Olympic legacy is a fairly well studied topic by researchers within the field and also within this faculty. This research made therefore extensive use of existing researches and their conclusions. While critically using these conclusions has this part of the research been shortened and more time was released to focus on the central question of this research: The potential of a decentralized model in a regional setting.

The Olympic Games is a fascinating and very commercialised event and therefore a large part of published material is not always reliable. Articles can have a very subjective message due to personal interests of the author. This was especially the case in the literature around the London Olympics. Due to the fact that this edition was so recent, emotions of different stakeholder are high, which often result in non-reliable information. In order to get the right information this research has conducted 7 interviews with different involved persons and parties of the London Olympics. There was a careful selection process that ensured that all positive and critical voices were heard in the data collection. The conclusions used have always been cross-referenced to other sources to test their validity. The interviews have been of crucial importance for the understanding of the unique legacy planning in the London Olympics, both on the urban and the architectural scale.

A usual master thesis stays within the theory and is concluded in theoretical conclusions. This research distinguishes it self by being concluded in a strategy projected and designed on an urban level on a specific case. This directly links the theoretical research, the developed regional strategy of using mega-events as catalyst for urban development and the architectural design. The potential of the theoretical hypothesis on a selected area is thereby tested and taken a step further.

On the urban level is a new pioneering de-central organisation strategy proposed as an urban planning tool and a phase in the development, is proposed. It combines the latest tendency of urban development in Europe with the use of a mega-event as a planning tool. The strategy is conceptually implemented in the Øresund region in Denmark to give an idea of how it could be de-centrally organised, used as a catalyst for urban development and to show its validity.

On the architectural scale is the stadium design dealing with the after-use of the often missing relevance of a 80 000+ stadium. The approach has been to challenge the transformability of a stadium structure instead of following the current trend of temporary and down-scalable stadium structures. The design is an exploration of mega-structures. Further is it also testing the options for change of use; where all other Olympic stadiums through the last century after the Games have been used for context determined sports is this design exploring the options of functions like housing.

This project has been worked out as group project between February 2013 and April 2014, which is a relative short period for designing bigness. For this specific project has it meant that through both the research and the architectural design have important factors such as finance and politics been paid less attention to, while the focus has been on the architecture. The bigness of the design has further forced us to leave out certain parts. But not because of limited time, no because: *"It is simply impossible to animate its entire mass with intention. Its vastness exhausts architecture's compulsive need to decide and determine. Zones will be left out."*, Koolhaas R, 1994.¹ This is one of the main characteristics of the typology commonly referred to as mega-structure or bigness.

"A mega-structure as any structural framework into which rooms, houses, or other small buildings can later be installed, uninstalled, and replaced; and which is capable of "unlimited" extension. This type of framework allows the structure to adapt to the individual wishes of its residents, even as those wishes change with time.", Wilcoxon R., 1968.²

Beside providing a clear definition of the term mega-structure the above standing also gives a good idea of what the very specific role of the architect designing it is: Different from the architect's role in many other cases is that the design is not absolute. One could say that the role for the architect designing a mega-structure is to "only" design a skeleton. Fundamentally is it the architects role to design the "permanent" of the a mega-structure, the constructing framework including the whole urban infrastructure such as installations and transport, which is separated from the "temporary", that can be slotted in or out of the supporting structure as required. The separation of the supporting structure from individual modules ideally enable the it to adapt without huge effort to its inhabitants' individual wishes, as well as to the changing social and economic conditions. Designing bigness forces the architect work closely together with the technicians; engineers, contractors, manufacturers often more on their premises.

On the scale of a mega-structure becomes architecture both most and least architectural. It is the most due to its physical size and it is the less according to its autonomy. This is also why one can say that mega-structures are generic and independent of their context. In them shelf they might be, but by incorporating a specific in-fill, "temporary" will it be able to adapt to a given context. In other words a mega-structure is impersonal and depends.³

Creating a mega-structure is not a job for a single architect it is job for a mixed team of experts. As earlier mentioned have this project been worked out as a group project by Jos Reinders (fellow student) and I. Although focus has been on the architectural design, which we are graduating on is the project approached with an ambition of designing an Olympic

¹ Koolhaas, R., 1994, S-M-L-XL; *"Bigness or the problem of Large"*

² Wilcoxon R., 1968; www.megastructure-reloaded.org/en/megastructure/

³ Koolhaas, R., 1994, S-M-L-XL; *"Bigness or the problem of Large"*

stadium, a mega-structure, challenging the typology. The ambition and focus of this project has been on an interdisciplinary research that touched upon the field of Urbanism, Real Estate and Architecture. What has been extremely fruitful is the interdisciplinary background of the design tutors and critics that each has been commenting from a different point of view. This forced us to take decisions that took all aspects into consideration – making the project relevant on more scales. Further has it given us an idea of what it means and how complex it is to design a mega-structure.

Aside from the great variety of tutors have we also got certain benefits from working together; Graduation is a very intense process, where you easily can get stocked, especially when designing on the biggest scale. We have been each other's tutors and the fact that a design always have to be argued and discussed have made the project much stronger. Working together have increased the quality of the project and made it more a like the world of practicing architects.

It is with pleasure and satisfaction I look back on project and it's process. Coming from the Danish school of architecture, where designs primarily are worked out in groups with a supporting design booklet has it been very interesting and different to work out a project together Jos Reinders. We come from different backgrounds and have different qualifications, which I think we throughout the whole project have been able to benefit from both on a professional and a personal plan.

There are of course certain risks of working together on a graduation project such as, difference in work load and the fact that we are two different persons with each our forces. Though I think we through the whole project have been very responsible and good to level the workload. This counts also for the design meetings where we each have been responsible for certain parts for every meeting. The assignments have continuously changed and we have thereby both been involved in all parts of the design.

The research is made to create a context on more levels for the architectural design. Although it contributes with many different aspects as well. It provides other researchers, urban designers and architects of future Olympic Games with a clear overview of transferable theoretical lessons and example of how they can be transformed into a context specific strategy and design.

The architectural design proposes how the Olympic architecture can be rethought by the use of highly adaptable mega-structures. The architectural product is an archetype development of the Olympic stadium typology; a mega-structure that through its size is modest, autonomous and generic and through its capability of transformation of the temporary can be context specific. The proposal provides an alternative to down-scalable and temporary stadium approach and contributes thereby to the discuss of the future mega stadiums.