

***Grossform* and the Idea of the European City: a Typological Research**

Abstract

The following article is twofold. The first part examines the project 'The City in the City. Berlin: A Green Archipelago', a study on the urban condition of West Berlin presented by the German architect Oswald Mathias Ungers in 1977 and its underlying concept of 'Grossform' formulated by Ungers in the 1960s. Ungers' theories and projects illustrate a very specific notion of the European city and grant architecture a decisive role within city planning. This paper attempts to evaluate the implications of Ungers' theories on the idea of the contemporary European city. Given a proliferation of prominent, large-scale architectural projects in recent years the notion of Grossform formulated by Ungers provides an interesting contribution to the topic of the architectural category of size and on phenomena of current architectural practice.

The work of Ungers will be discussed in order to illustrate the underlying theory of the conducted research, which will be presented in the second part of the article. The second part discusses the applied research method 'research on design' and its challenges and sheds light on the research process.

Keywords: Architecture; Grossform; Archipelago City; Ungers; Research on Design

Introduction

'Because there is no theory of Bigness, we don't know what to do with it, we don't know where to put it, we don't know when to use it, we don't know how to plan it. Big mistakes are our only connection to Bigness.' [1: p.509f.]

This quote from the Dutch architect and thinker Rem Koolhaas is the point of departure for this research. In his text 'Bigness. Or the Problem of Large.' of 1994 Koolhaas tackles the challenges architects have to face when designing big building volumes with complex programs. In his opinion Bigness can be the driving force to establish a new spatial order in the city and to generate places of identity for its inhabitants.

When looking back in history large-scale architectural projects are a recurring phenomenon in architecture and city planning. Moreover today they play an important role in the development of cities and are a challenge for contemporary architectural practice. These buildings are *large* in scale, *hybrid* in program and *private* in financing. They are condemned by opinion in some parts of society and not infrequently by the discipline itself for their display of financial and political power within a globalized neoliberal system and for their apparent ignorance towards the existing fabric of the city. This criticism is a challenge the discipline has to deal with. But often architects themselves do not know what to do with these 'big' projects: how to talk about them, evaluate them and use their architectural and urbanistic potential for their designs, resulting in the denouncement of large-scale projects. This condemnation is often not based on a thorough analysis of the architectural project and its underlying concepts, however, but simply on biases. When facing the reality of having to deal with bigger building volumes and hybrid programs it is necessary to understand the architectural culture of this type of building:

'[...] contemporary architectural practice shows a limited interest in criticizing existing approaches. Yesterday's design projects are fully denounced not so much because their flaws have amply been demonstrated, nor because their hypotheses have proved to be false, but simply because they lost appeal due to the fact that a newer and more attractive rival appeared on the scene. This particular feature prevents contemporary architectural culture of accumulating a certain body of critical

knowledge on how architectural projects are conceived, how they are realized and how they perform within reality.’ [2: p.223]

In this regard, it is important to have an ‘in-depth understanding of the stock of historical solutions in order to define new models, systems and approaches’ [ibid.: p.216] for contemporary practice.

Grossform is very often linked to monumentality and its political implications. It is stigmatized due to its instrumentalization by totalitarian regimes of the past and is exploited in the contemporary world for a capitalist demonstration of power. But despite these negative connotations of large-scale projects architectural categories like ‘form’ or ‘size’ depict fundamental architectural themes, which stimulated fascinating and fruitful discussions in the 20th century on the relation of proportion and aesthetics or of the architectural object, city planning and their social implications. One of these contributions emerged in Germany in the 1960s with Oswald Mathias Ungers at its center; a German architect who provided an important contribution to the topic of architectural size with his concept of Grossform. Ungers’ reflections on this building type had an enormous influence on his idea of the city and the role he granted architecture within city planning. Ungers’ thinking is deeply rooted in a European tradition and notion of the city and advances in dealing with European projects. The concept of Grossform has to be understood in the context of a European understanding of urbanity and civic life. The research presented here thus focuses on the European context of designing hybrid large-scale architectural projects.

But before discussing Ungers’ approaches and the topic of Grossform it is important to state that the research focuses primarily on architectural issues. It is not about exploring the social, economic or political structures that underlie the realization of large-scale buildings today; the research is about discussing and understanding *architectural* issues for the purpose of advancing *architectural* knowledge. In this regard the research refers to the concept of ‘relative autonomy’ introduced by the French philosopher Louis Althusser in his essay ‘Ideology and Ideological State Apparatuses (Notes Towards an Investigation) [3] from 1970. With this theory Althusser described the relationship between the ‘superstructure’ of society – including the State, ideology and culture – and the economic ‘base’: ‘Relative autonomy signifies that none of these realms can be strictly reduced to the others – or strictly determined by the others.’ [4: p.31] With this in mind, the cultural realm, including architecture, is not understood as the pure expression of the social, political or economic conditions from which it materializes. It is structurally connected to these realms but at the same time, however, it develops according to internal and autonomous logics and rules. The research focuses on these internal logics. The work of Ungers is paradigmatic for this complexity of architectural practice, yet the notion of the autonomy of architecture is prevalent in his projects and writing.

The Archipelago City

In 1977 a small booklet was published with the title ‘Die Stadt in der Stadt. Berlin das grüne Stadtarchipel’ [5, 6]¹ presented by Oswald Mathias Ungers who was supported by a group of young architects namely Rem Koolhaas, Peter Riemann, Hans Kollhoff, and Arthur Ovaska². The manifesto³ focused on post-war West Berlin and its urban condition: unable to shrink due its fixed surface defined by the Berlin Wall while at the same time facing an enormous depopulation. The team formulated and illustrated a future scenario for Berlin based on 11 theses and ‘two diametrically opposed actions’ [8: p. 200]: reinforcing existing parts of the city and thereby reducing it to concentrated points, city-islands, while at the same time demolishing zones of the city which have been abandoned thereby

¹ ‘Cities within the City’ was first published 1977 in German only. It was published one year later in Italian and English (slightly reworked) in *Lotus International* No. 19 bringing it to a broader audience.

² In their book Florian Hertweck and Sébastien Marot [7] tried to shed light on the mutual influence of the people involved, in particular Rem Koolhaas’ exchange with Ungers and his impact on the final text.

³ Despite its low-key format and low dissemination at the time of publication ‘Die Stadt in der Stadt. Berlin das grüne Stadtarchipel’ can be seen in the tradition of influential manifestos of its era, such as: *Learning from Las Vegas* (1972) by Venturi, Scott-Brown and Izenour, *Los Angeles: the Architecture of Four Ecologies* (1971) by Reyner Banham, *Collage City* (1978) by Colin Rowe, or *Delirious New York* (1978) by Rem Koolhaas. By analyzing the condition of a particular place or city these ‘city-specific manifestos’ [7: p.7] illustrated a particular approach towards urban planning.

composing an Archipelago City in which architectural islands float in a natural ‘sea’. The selection of the existing districts was based on their morphological distinctiveness and on the urban concept they represent:

‘The architectural and planning intentions for the future consist solely in enucleating the true configuration of each urban island on the basis of which it was first chosen. It is essentially a matter of establishing, in a way, the “physiognomy” of that part of the city in question, and leaving one’s own stamp on it to such an extent that it finds its proper expression.’ [7: p.94]

The selection was not based on economic criteria but rather on the notion that these districts formed the ‘cornerstones of the symbolic geography of the city’ [9: p.223]. Ungers and his team produced morphological sequences illustrating the development of the selected districts into architectural islands. (Fig. 1)



Figure 1: Morphological sequence of the ‘Cathedral district’ of Friedenau: aerial photo, plan, building structure, island, analogy (Image: Oswald Mathias Ungers [7: p.54f.]).

In accordance with the existing morphological structure of a district certain characteristics were emphasized by design interventions and supported by images and analogies, thereby creating architectural islands, which can be understood as structures of Grossform.

In contrast to these distinct islands the substrate of the area between them was based on monotony: parks, woods, agriculture, and urban phenomena of the globalized age such as suburban housing zones, highways, supermarkets, shopping malls, airports, drive-in cinemas, amusement parks, and industrial buildings shaped the grid which held the individual islands together. This generic grid, which stands in opposition and confrontation to the defined architectural islands, embodied the urbanized areas of European cities.

Using this image of a fragmented city Ungers and his team formulated an unprecedented view of the European city and evoked new lines of thinking about urban planning. The approach reversed commonly used urban planning methods focusing on unifying the city – until this date – and promoted a pluralist system. The concept of the Archipelago City appreciates the ambiguity of the modern European metropolis, which is coined by a congestion of different, divergent and dichotomous principals, and acknowledges ‘the pluralism of an individualized society without giving up the idea that a larger cohesive framework is possible’ [10: p.18]. It is not about creating a unit, but about separating the city into sectors, districts, with architecture as their symbolic core. These islands stand out from the rest of the urbanized field ‘by their quality and collective distinctiveness’ [7: p.100] and constitute urban spaces of identity for each district and its inhabitants. Architecture is the departure for developing spaces of identity within the urban realm. It is the architectural form that brings spatial order and hierarchy to the sprawling urbanized areas of our cities. This approach towards urban planning, which is based on a negotiation between architecture and the city, is rooted in Ungers’ thinking about the concept of Grossform, which he formulated 11 years prior to the manifesto, in 1966. [11]

Grossform: Elevating Architecture

Again in a small booklet with the title ‘Grossformen im Wohnungsbau’⁴, which was based on a lecture series held in Russia in autumn 1966⁵, Ungers presented his thoughts on future forms of urban living and reflected on his experiences as a practicing architect. By gathering a selection of well-known projects, from mass housing to urban planning projects, Ungers discussed the essential principals of the concept of Grossform and formulated four criteria defining this building type:

- ‘the existence of an over-accentuated element,
- the existence of an additional binding element,
- the existence of figure and theme,
- the existence of a system or an ordering principle.’ [11: p.6f.]

These propositions are illustrated by a selection of projects, which can be understood as metaphors or analogies for the concept of Grossform, a tool of designing and thinking, which Ungers liked to use in his projects. In contrast to a general understanding of the term ‘Grossform’, Ungers’ idea on this concept did not refer only to large-scale projects, but primarily to the definition of a strong architectural form:

‘Only if a new quality is added to the sum of the individual parts and a higher level of development is achieved, can a Grossform emerge. Numerical size is not important. A house small in volume may equally well be a Grossform as a block of houses, a district or an entire city.’⁶ [11: p.5]

Ungers illustrated his thinking with the Villa Malaparte built in 1937 by Italian architect Adalberto Libera: On the one hand the staircase fulfils the function of connecting two levels – the ground floor of the house and the roof terrace – but at the same time its shape defines the entire building. The house is perceived as a staircase. The staircase makes a leap in scale thus defining the shape of the building and determining it as a Grossform.

At the same time Ungers’ starting point for the concept of Grossform was quantity⁷. The category of ‘size’ cannot be neglected, especially when facing the challenge of designing mass housing as in the 1960s. Ungers was thus of the opinion that it was essential to combine building volumes and design in a large scale. In his text ‘Form in der Großstadt’ [13] published one year later, in 1967, on the project ‘Ruhwald’ Ungers summarized this argumentation as follows:

‘Megaform is, in terms of reality, more important than single-unit form. Concepts such as living wall, living carpet, living funnel, living hill and living panel contain larger connections and at the same time characterize categories of a new approach to imagination in design. [...] It has been proven that quantities generate new qualities.’ [14: p.6]

In his opinion the reality of the modern metropolis provoked decisions in design and urban planning that could not be solved by conventional design methods and tools: ‘Both the concept of the house as a single autonomous work of art, and the concept of the city as an economically and socially self-sufficient unit are equally irrelevant to the problems we must face.’ [14: p.5] For Ungers, Grossform was a possibility to think about design processes in architecture and urban planning in a new way.

⁴ It was printed in the series of publications ‘Veröffentlichungen zur Architektur’ (VzA), which Ungers produced during the time of his chair (Institut für Entwerfen VI) at the TU Berlin. Ungers published in total 27 VzA from 1965 to 1969, the year when he left the TU Berlin due to student revolts and was appointed professor at Cornell University in Ithaca.

⁵ Ungers was invited by the Soviet Architects Association to Moscow, Odessa, Kiev and Leningrad to present his thoughts on architecture. [132: p.207]

⁶ English translation by the author; original in German: ‘Erst wenn zu der Summe von Einzelteilen eine neue Qualität hinzukommt und eine höhere Entwicklungsstufe erreicht wird, entsteht eine Grossform. Kennzeichnend ist nicht die numerische Größe. Ein im Volumen kleines Haus kann ebensogut eine Grossform sein wie ein Häuserblock, ein Stadtteil oder eine ganze Stadt.’

⁷ In her essay ‘The Archipelago City: Piecing Together Collectivities’ Lara Schrijver points out the ambiguity between the role of form and scale in Ungers’ argumentation on Grossform. [9]

The closing comments on Grossform provided an outlook reaching towards the Archipelago City. Ungers described Grossform as the ordering frame within which ‘unpredictable, unprojectable and lively processes’⁸ [11: p. 29] take place, thereby understanding Grossform as a mediator ‘between autonomous architecture and a participative development; between authoritarian and self-determined planning’⁹. [14: p. 45] In this sense, architecture gives form to and frames urban life. In the Archipelago City this frame was constituted by the grid, which held the individual islands in place and at the same time framed the urban activities, which took place within it. But also the architectural islands themselves can be understood as strong architectural forms, which frame urban life.

Ungers’ thoughts on the concept of Grossform were particularly influenced by the book ‘Die Architektonische Grossform’ of 1957 [15] published by his teacher, the German architect Otto Ernst Schweizer. In regards of the growth of the modern European city of the 20th century, Schweizer considered the Grossform as a possibility to give the ‘unrelated juxtaposition of the most varied forms’¹⁰ [15: p.10] spatial order and hierarchy. Grossform is a possibility

‘to architecturally frame the transformations of changing functions with a construction [...], which is able to assert itself by its elastic adaptability against the volatility of modern life and its constantly evolving technology’¹¹ [15: p.8].

In this case, Grossform was perceived as an architectural concept that combines flexibility and adaptability with permanence and a strong architectural expression. The fact that a direct line of thought can be drawn between the considerations of Schweizer about the concept of Grossform and Ungers’ City in the City released 20 years later becomes most evident when considering Schweizer’s thoughts on the topic of city centers. Facing the expansion of European cities, Schweizer was of the opinion that the design of new city centers was the main task modern architects have to face. The developments of new urban areas are very often based solely on technical and economic premises. But in these new urban zones a ‘human core’ [15: p.148] respectively an architectural island needs to be developed. Large commercial, cultural and recreational centers with a distinct architectural expression could act as the backbone of new urban developments. These ‘islands’ within the ‘inorganic expanded urban complexes’¹² [ibid.] restore the notion of identity and collectivity in urban space by creating manageable environments and places of engagement for the city’s inhabitants while at the same time confining the seemingly infinite sprawl of cities. Grossform, whether as a residential building or a public civic center, could bring spatial order to the dissolving body of the city. Again, the strong form functions as a counterpoint to the amorphous urban sprawl.

Research ‘on design’

Having set out the theory this research is based on the second part of this article will shed light on the ongoing research process and its challenges. No results can be presented at this point since the research is still at an early stage, but the introduction of the first considerations and actions taken can function as a basis for further discussion.

The aim of the research is to analyze large-scale projects in order to draw conclusions on possible implications for current architectural practice and urban planning. The research will focus on the one hand on the public or semi-public spaces created within large-scale architecture projects and on the other hand on the tools and methods needed for designing a Grossform. The latter is crucial for the

⁸ English translation by the author; original in German: ‘Die Grossform schafft den Rahmen [...] für einen unvorhersehbaren, nicht planbaren, lebendigen Prozess’.

⁹ English translation by the author; original in German: ‘ein Vermittler zwischen autonomer Architektur und partizipativer Entwicklung, autoritärer und selbstbestimmter Planung’.

¹⁰ English translation by the author; original in German: ‘beziehungslosen Nebeneinander der verschiedenartigsten Formen’.

¹¹ English translation by the author; original in German: ‘durch eine als Großform konzipierte Konstruktion den Verwandlungen wechselnder Zwecke ein architektonischer Rahmen gegeben werden kann, der gegenüber der Veränderlichkeit modernen Lebens mit seiner ständig sich entwickelten Technik durch seine elastische Anpassungsfähigkeit sich zu behaupten vermag’.

¹² English translation by the author; original in German: ‘unorganisch ausgeweitete Stadtkomplexe’.

practice of architecture since ‘the models for big building projects have rarely developed within the last one and a half centuries’¹³ [16]. The understanding of possible underlying principles of the design of large-scale buildings could be an enormous advancement for the knowledge culture of architecture. Furthermore the public space within a Grossform is an important topic to discuss. As mentioned earlier, large-scale projects are often criticized on the one hand for being symbols of the prevailing neo-liberal economic system because they are usually privately financed, thus creating rather ‘private’ – or ‘semi-public’ – than ‘public’ spaces within the city. On the other hand they are often perceived as isolated urban fragments with no connection to their context. But the question at hand is if these semi-public spaces within Grossform-projects do have a spatial and urban potential and can contribute to a positive development of a city. Moreover it is important to analyze the relations between these spaces within a large-scale project and the rest of the city. The research on the concept of Grossform could open up new perspectives on these pressing themes and furthermore on the notion of the city.

The investigation will be conducted with the research method focussed ‘on design’ meaning that selected projects will be analyzed trying to find new knowledge about these projects and thereby providing new perspectives on challenges the discipline has to face today. Referring to a paper by architect and academic Oya Atalay Franck [17]¹⁴ research ‘on design’ describes research done ‘about designing or for the purpose of designing’ [ibid: p.5] focusing ‘on all kinds of aspects related to a specific design problem’ [ibid.]. In this type of research, designed projects are the objects to be studied.

The analyses of selected projects will be conducted with the tools of architectural production – plans, diagrams, drawings etc. – ‘as a means of describing, theorizing and explaining’ [18: p.175] the issue thereby ‘bringing the results of research closer to the design process’ [ibid.]. Conducting research in the architectural field *on* architectural objects *by* architectural means one is constantly confronted with – as Nigel Cross described it in his famous text ‘Designerly Ways of Knowing’ [19] from 1982 – ‘ill-defined’ problems, which are a genuine part of the architectural culture of knowledge production:

‘They are not the same as the “puzzles” that scientists, mathematicians and other scholars set themselves. They are not problems for which all the necessary information is, or ever can be, available to the problem-solver. They are therefore not susceptible to exhaustive analysis, and there can never be a guarantee that “correct” solutions can be found for them.’ [ibid.: p.23f.]

For Cross this type of problems demand a very specific approach towards the problem-solving-process, which he described as ‘designerly’ and which characterizes a third area of knowledge production next to natural sciences and the humanities. Thus the research described here is not about finding the single correct solution – which does not exist in this type of research – but about raising questions and trying to illustrate possible considerations and making them shareable thereby enriching the ‘body of critical knowledge’ [3: p.223] of the discipline.

The next chapter will illustrate first attempts in investigating a project and thereby testing architectural research methods and techniques.

First Experiments

The first stage of the research was the start of an experiment with an unpredictable result: one project was selected to test different analysis methods and approaches. The experiment is still going on hence only the first actions taken can be shown here. Since there are (still) no specific criteria formulated for the selection of the projects to be investigated, taking Ungers’ own selection of projects for his publication about Grossform as a reference appeared to be an obvious course. Furthermore two premises were formulated in order to confine the selection of possible projects: first, the project should be located in Europe and second, the project should be a hybrid combining a variety of public functions with housing. Simply by formulating these two premises the selection was narrowed down to a few

¹³ English translation by the author; original in German: ‘die Modelle für grosse Bauvorhaben [haben] sich kaum weiterentwickelt [...] in den letzten anderthalb Jahrhunderten’.

¹⁴ In this paper Atalay Franck formulates the distinction between research ‘on design’ and research ‘by design’.

projects leading to the selection of the design of the Culture and Business Center for the Nordweststadt by Dutch architecture company Van den Broek en Bakema from 1961 (**Fig. 2**).

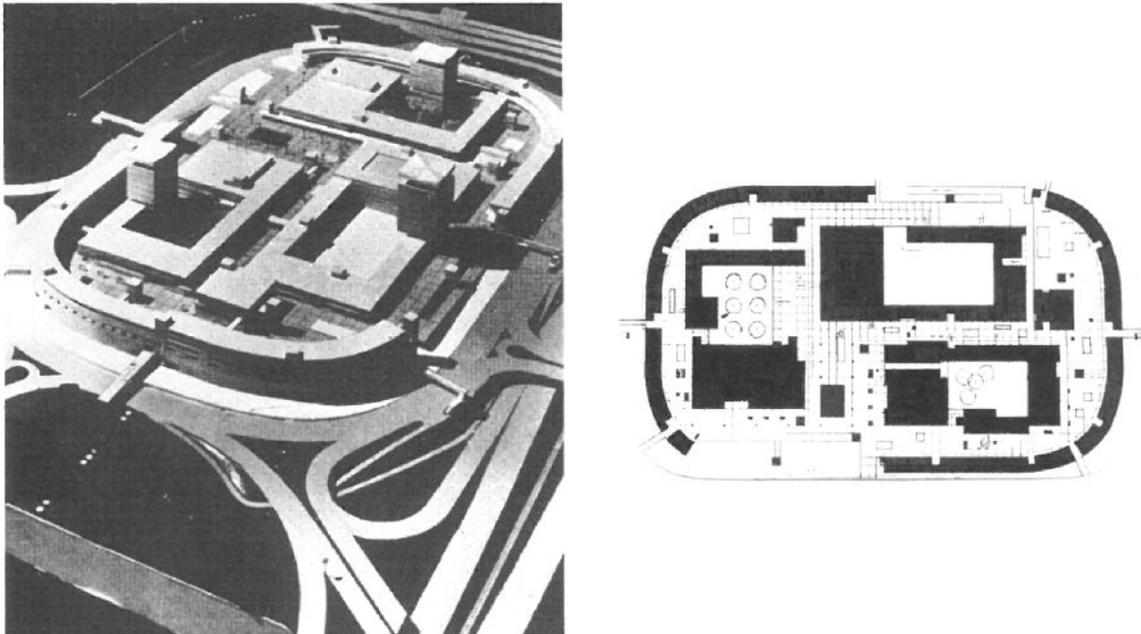


Figure 2: Culture and Business Center for the Nordweststadt by Van den Broek en Bakema
(Image: extract of Ungers' 'Grossformen im Wohnungsbau' [11: p.20];
Collection Het Nieuwe Instituut/ BROX).

The design of the Culture and Business Center for the Nordweststadt in Frankfurt by Van den Broek en Bakema was submitted in the competition for the center of the Nordweststadt, an ambitious city development project by the Frankfurt City Council, which had been won by German architect Walter Schwagenscheidt two years earlier in 1959. The Culture and Business Center was conceived as the cultural and social center not only for the Nordweststadt but also for a larger catchment area of the suburbanized areas of the Northwest of the city of Frankfurt with an approximate total number of 80,000 inhabitants. [20] This center should not only be a traffic hub and shopping center, but a 'city crown' for the suburban area; an urban place, which provides a sense of identity and collectivity for the inhabitants.

Ungers used the project in his publication on Grossform to illustrate the concept of the 'closed block with inner courtyard' [11: p.21], a special form of the concept of the wall. The block 'offers a distinction between interior and exterior. The courtyard mediates as a semi-public space between the public free space and the private apartments.'¹⁵ [ibid.] This semi-public space can be described as an 'urban interior' [20: p.202] or as a collective space for the people who live in this Grossform.

The first means in order to start to understand the project and its potentials was to re-draw the existing floor plan of the project. (**Fig. 3-4**). Despite its very literal nature, starting to re-draw the existing floor plan was the most feasible method for getting a grip on the project and being able to document first findings. Copying is a valuable method for understanding a project and its underlying principles. [18] To re-draw a project means interrogating it, trying to thoroughly understand it and examining its quality of composition, proportion, spatial qualities etc. While re-drawing the project the main principles of the design became more evident and were documented in the form of diagrams. (**Fig. 5**) The re-drawing of the plan required a definition of parameters according to which the project will be drawn. What are the dimensions for the grid, the construction, etc.? The defining of certain specific data and facts is essential (**Fig. 6**), especially when working with plan material, which is not available

¹⁵ English translation by the author; original in German: 'Er [der geschlossene Block] bietet eine Unterscheidung zwischen Innen- und Aussenraum. Der Innenhof schaltet sich als halböffentlicher Raum zwischen den öffentlichen Freiraum und die private Wohnung.'

digitally. This is a constant adjusting and searching process for reference points in the existing plan and in the descriptive texts about the project.

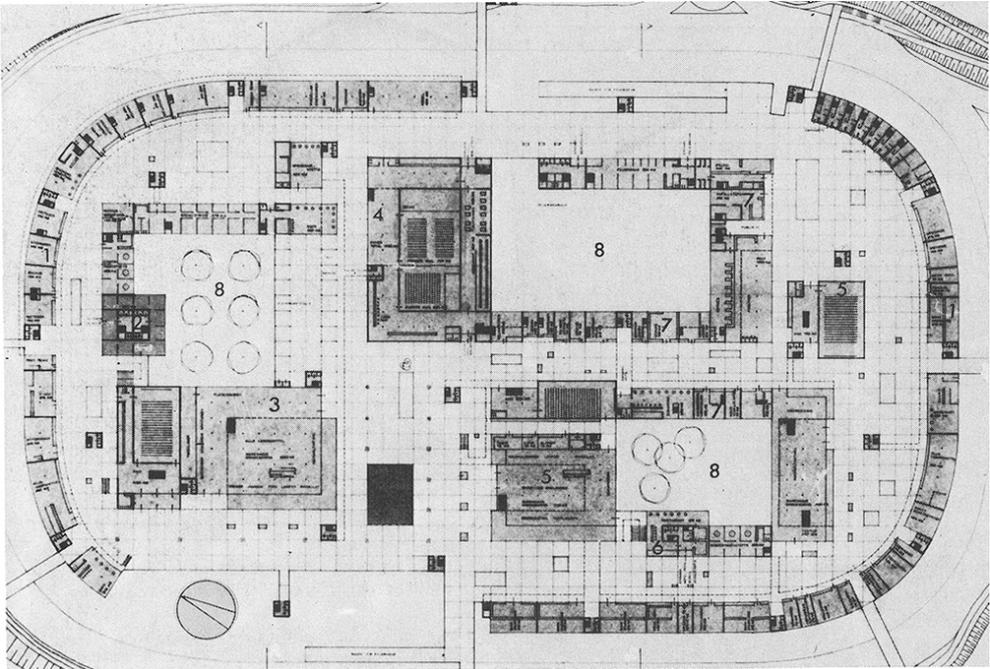


Figure 3: Floor plan of the design of the Culture and Business Center for the Nordweststadt by Van den Broek en Bakema (Image: Architectengemeenschap van den Broek en Bakema [21: p.12]; Collection Het Nieuwe Instituut/ BROX).

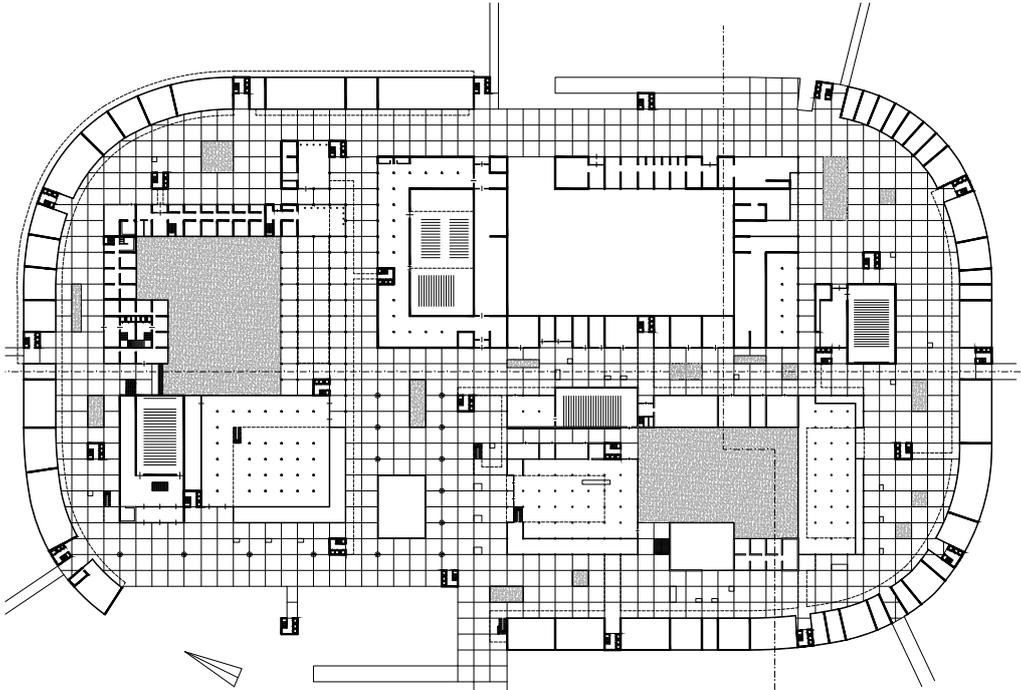


Figure 4: Re-drawn floor plan (Image: Eva Sollgruber).

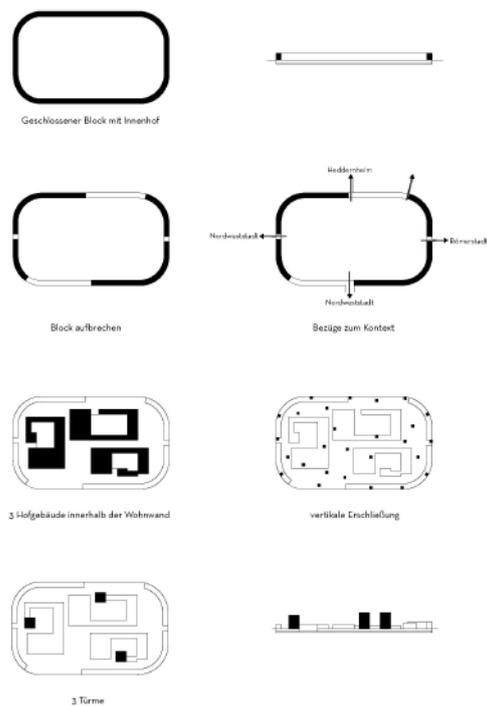


Figure 5: Diagrams explaining the main design principles of the project (Image: Eva Sollgruber).

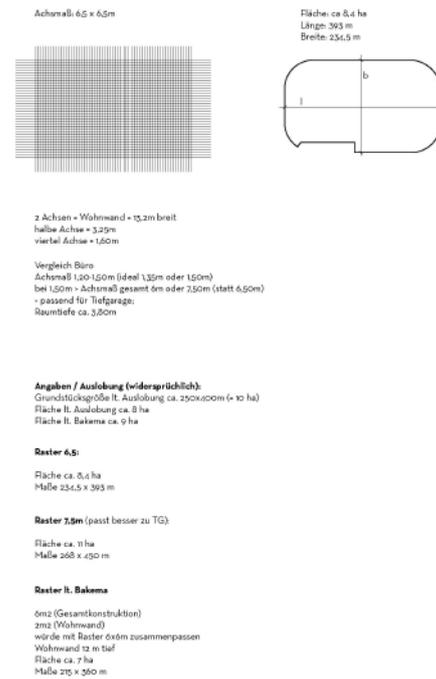


Figure 6: The 'fact sheet'; collected data about the project (Image: Eva Sollgruber).

It turned out that the act of re-drawing is an important basis for a further examination and thinking about the spatial qualities and characteristics of the project. It is neither necessary to re-draw the project in its complete form, nor is it possible to produce an accurate replica of the original project; the reproduced plan can only be an approximation of the actual design but it can be considered as the first stage of the researcher's reflection on the project in order to draw conclusions not only about the project in particular, but about the concept of Grossform in general. The overall objective of the research is the shareability of these conclusions and interpretations as also the externalization of the tacit knowledge that resides within the designed project. Each of the produced drawings at this point represents a different perspective on the project: the 'fact sheet' illustrates the numerical, the diagrams the systematic and the ground floor the typological aspects of the project. It will be necessary to develop these methods of investigation further in order to illustrate the researcher's conclusions and interpretations of the project and to utilize the creative and speculative potential of the tool of drawing. Moreover the selection of the projects analyzed will be a crucial step in defining the overall output and direction of the research.

Conclusion

The concept of the Grossform represents a specific approach towards urban design. For Ungers it demonstrated the possibility of uniting architectural *quantity* with architectural and urban *quality*. In the prospect of ever increasing building tasks, this question seems to be more relevant than ever. The research discusses, evaluates and interprets large-scale projects in order to illustrate this specific theory of the city with the means of architecture. It is not about judging the quality of selected projects but about identifying their potentials for contributing to an ongoing debate within the discipline; it is about raising questions and using the 'critical capacity of the architectural project' [3: p.214] to comment on current developments and provide possible scenarios for new approaches towards design and urban planning. In order to be able to utilize this critical and speculative capacity of architecture in research, it is necessary to apply methods and produce material, which do justice to this potential.

Until this point the produced material of this research merely informs about the project. As mentioned above it is necessary to develop the applied research methods further and utilize its creative potential. Using architectural or even artistic methods as a tool of investigation offers the possibility of formulating statements *on a design* with the *methods of design*. There are no fixed rules or strategies for this type of research. The researcher is confronted with the question of how to utilize architectural methods within the field of research with every new project. The path of gaining knowledge is as unpredictable and complex as the process of architectural design itself. The relevance of this type of (PhD) research resides here, since it contributes to a further establishment of ‘designerly ways’ of knowledge production.

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