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The Architecture of the Urban Project

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The Architecture of the Urban Project

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F.S. Platou and Johan Melander
discussing DnC Vaterland project,
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To Nora and Daria

Acknowledgments

My interest in the topic of the large-scale is a consequence of three specific precedents that have influenced me in my formative years as an architect. Firstly, being a student of architecture in the second half of the 1990s, I found an intellectual pleasure in the discourse on large-scale projects and their inherent urbanity as formulated by Rem Koolhaas, both in *Delirious New York: A Retroactive Manifesto for Manhattan* and in the essay “Bigness and the problem of large”. Secondly, being a newly-educated architect in the early 2000s, I witnessed the expansion of Oslo. The discussions, both those within the discipline and those among the public, were colored either by the reactionary attitude within which Oslo was to maintain its Christiania-scale of the 19th century, or by progressiveness that favored a heroic image within which Oslo would become a European metropolis. Both discussions usually came up too short as they were dealing more about the image of the city, than about its particular structural characteristics; more about the medium of a plan than about the operability of a project; more about the academic fictiveness of the socio-economic space production processes than about the actual architectures of this changing city. Thirdly, being a winner of European competition in Vienna with a project, which was a direct architectural translation of my fascination for the large-scale (the proposal was conceptualized as one continuous 27,000-m² structure) I was surprised by the fact that the Viennese politicians, planning authorities and client did not disclaim the project on the basis of its ideological preference for the large-scale. Rather, the discussions revolved around the pragmatics of the urbanization processes in relation to the project itself – the project’s architectural capability to absorb the multiplicity of parameters, from financing matrices and housing subsidy standards, constraints of multi-programming, to the integration of local pedestrian paths. The issue of the large-scale was not as tentative and traumatizing as it was in Norway. The following research is a settlement, which I am making with architecture where I use the notion of the large-scale to unfold my personal fascinations and delusions towards architecture both on the disciplinary and professional level.

First and foremost, this research would not have been possible without my advisors Karl Otto Ellefsen and Jonny Aspen. They have guided me with endless patience, helping me further my fascination for architecture and urbanism. Karl Otto's insights have assisted me in opening up and structuring the research matter. Jonny's input has made me understand the meaning (and difficulty) of academic rigor.

In 2008, I was enrolled in AHO's PhD program, and the research was to be completed within four years. It has been a demanding period as I have combined the practices of design, writing and curating into one intertwined endeavour. Simultaneously with this research, I have been running my architectural practice Malarchitecture where the aforementioned European project performed as the office's main protagonist – currently, the project is under construction. In addition, I was involved in exhibitions, “Greetings from +9” and “Custom Made – Naturalizing Tradition”, curated with my good friend and intellectual *compagno*, Halvor Weider Ellefsen. Never-ending late-night discussions in Oslo bars and on the intercontinental flights have undoubtedly had its impact, and I am indebted to Halvor. I thank also people in my office, especially Anders Tønder Sletbak, for being present during the most hectic period when both Vienna designing and PhD writing demanded their full attention.

My gratitude goes to Hanne Wilhjelm who did academic proofreading. At first, her comments seemed harsh, but when absorbed, they had improved and elevated the thesis.

Finally, I have to mention my beloved family. In the course of this research, I have repeatedly been asked two simple yet very difficult questions (which may be understood as a combination of a sublime critique and a friendly interest in my whereabouts). My parents, Valida and Sead, inquired: “Can't you *just* finish your thesis?” while my sister Selma and her husband, Kjetil (who also holds PhD-degree), were much gentler: “How is it going with your thesis?” I thank them very much for reminding me about this research in the moments when I was too busy doing ‘other things’.

Eight years is a long period. Besides this research and the above-mentioned *extracurricular* activities, I have started a family with Nora. Our daughter, Daria, was born and that has given me additional energy and urge to finish my writing. I would like to thank Nora for supporting me during this long expedition.

Oslo, March 2016
Mirza Mujezinović

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1: 'Do you remember the good old days before the ghost town?', "Ghost Town" by Jerry Dammers/The Specials, 1981 (Image: Universal).

Abstract

“The Architecture of the Urban Project” is about large-scale architecture in Norway. Projects that potentially fall into this category are those that blur the distinction between *the city* and *the building*, more specifically projects such as new universities, urban redevelopments and waterfront transformations. Usually, such projects have one investor (either public or private) and consist of several building volumes developed in stages, where each stage is interdependent of the totality, being able to function both on its own and within the framework of the whole project.

The research addresses how large-scale architecture evolved from the late 1960s up to the early 1980s in Norway. From the societal perspective, this period represents shifting economic, political and technological realities. The post-war reconstruction had ended; the process of modernization had made itself increasingly present, and the process of democratization had become gradually more absorbed within the framework of decision-making, especially within the planning and building sector with the new building law of 1965. From the architecture culture perspective, it is the period of critique of modernism, representing the emergence of interest for the traditional (European) city as explicated through the processes of revitalization and densification. *Working within* and *learning from* the existing urban context would emerge both as a constraint and as a source of inspiration for practicing architects.

The research revolves around the question: to what degree does a specific type of architectural and urbanistic sensibility emerge due to the changing societal condition and its subsequent (large-scale) building assignments in the above-mentioned period? The notion of sensibility refers to interplay between a general architectural and urbanistic discourse on one side, and architects’ ability both *to comprehend* complexities around and within building assignments, and *to translate* these complexities into physical structures, on the other side.

The primary source for this study is large-scale projects in Norway: Henning Larsen’s University of Trondheim, Platou’s Vaterland and Telje-Torp-Aasen’s Aker Brygge. In other words, this research is a monograph about one particular type of projects within one specific period.



2: The brave new Oslo, 2010. (Photo: Mirza Mujezinović)

1. About the Thesis

Opening Remarks on Terminology

Architecture Term

This research builds on a twofold understanding of the architecture-term. On one side, it addresses the idea of built environment as a physical structure being perceived as a form and an expression. Within such an understanding, large-scale architecture is read as an architecture of the contemporary city, being an expression of numerous socio-political, cultural and economic forces. On the other side, architecture-term refers to the dialectic relationship between architecture as a profession and a discipline. The former refers to the field of production performed by architects and the building industry. As such, it accentuates the role of an architect as an expert with a specific knowledge- and experience-based expertise. The latter refers to architecture as an autonomous discipline having its own history and terminology, being a system of ideas and norms developed through the field of its own traditions. Within this relationship, large-scale architecture is read as a product entwining disciplinary ideas (and discourses), and professional space production practice.

Context

The departing point is the notion that the official financial policies, organizational changes and technological innovations directly influence the architecture practice.¹ As Ellefsen discusses through Hanno-Walter Kruft's *History of Architecture Theory*, the theoretical basis for architecture practice relates to its historical context: "In architecture theory, an idea is not important in itself, but in relation to when, under which circumstances and contexts it is conceived."² My thesis acknowledges this perspective as I explore the main societal moments influencing the architecture culture from the late 1960s to the early 1980s, yet the thesis' main thematic focus is given to architecture's autonomous field of ideals, ideas and imaginaries, and their subsequent translation into the built form. The reason for this architecture-focused approach is my intention to go

¹ Karl Otto Ellefsen, "Arkitektur og planlegging," *Byggekunst* 7 (1993): 448.

² For more, refer to Hanno-Walter Kruft, *Geschichte der Architekturtheorie* (Munich: Verlag C.H. Beck, 1985).

beyond attitudes towards the large-scale projects where these have usually been discussed more through their socio-economic context and less through their being as built *architectures*.³ For example, one commonly characterizes large-scale university projects as *state architecture* or urban redevelopments as *developer-driven architecture* and not as *architecture* itself. My assumption is that behind all large-scale projects there has been an architect (or group of architects) with ideals, ideas and imaginaries encountering the reality of building. The conversion of large-scale capital or large-scale state policies into a built environment is an endeavor where architects play an integral role, and as such, it is treated in the course of this thesis.

Building Assignments and Built Architecture

Subsequently, this research explores the architect's position within space production practice as seen through the perspective of large-scale architecture. Here I draw a distinction between architecture as an image of society and a gestalt-maker of societal needs; and architecture as a sediment of the architecture discipline's own autonomous tradition. The former relates to the actual *building assignments* initiated and influenced by the socio-cultural context. Building assignments are defined through political projects (on a national or local level), building programs or budgets.⁴ The latter relates to how the societal needs as explicated through the medium of building assignment were eventually transferred into the built form, *built architecture* – the accent is given to the translation of imaginaries into a particular architectural form.

Imaginaries

This research revolves around translation of imaginaries.⁵ Being concurrent to architecture culture, these represent, on one hand, physical ideals (relating to organization, program and structure), and on the other, expression ideals (relating to iconography). Sometimes these may appear intertwined, as in the case of structuralism where there is a common line projected on program, structure and iconography. While sometimes these may be disengaged, as it is the case of postmodern historicism, where program, structure, and iconography function on a level of collage of interdependent elements.

3 A typical example is Elin Børrud's doctoral research "Bitvis Utvikling – møtet mellom privat eiendomsutvikling og offentlig byplanlegging" (PhD diss., Arkitektur- og designhøgskolen i Oslo, 2005). It excellently describes the conditions of architecture and planning practice within the context the neo-liberal regime, but it projects a limited view on the particularity of the architectural sediments.

4 For example, the Norwegian post-war modernization project, as explicated through the state policies, had created a need for educated population. This had resulted in expansion of the educational infrastructure – the building assignment was the construction of new universities.

5 Martin/Baxi define the term 'imaginary' as "a very real collective imagination, a dreamscape that includes objects like buildings and cities". This definition functions as a departing inspiration for my research. Reinhold Martin, Kadambari Baxi, *Multi-National City – Architectural Itineraries* (Barcelona: Actar, 2007), 7. My use of the word is wider as it presumes 'imaginaries' as sets of (complementary and/or contradictory) ideas that precede projects. In this research, 'imaginaries' designate a driving force underlying projects: they seek to unfold what propels a project forward.

Imaginarities are tools that provide architects a capacity to envision, to synthesize and to legitimize their architectural and urbanistic project. For example, they give leads in numerous questions; from what is the idea of the city and the urban space, to how a project should articulate the logic of flexibility and gradual development. If a building assignment corresponds to the program, which defines the future performance of the building, then imaginaries represent how this performance should unfold. A building assignment regulates conditions under which imaginaries may be used, but cannot affect the original content of these.⁶

Translation

It is during the process of translation that the imaginaries' original content starts interacting with the reality of building. The translation dialectic depends on two interdependent parameters: modifying factors and time. The former relates to the factors interacting with the proposed imaginaries and the building assignment itself. These may be external, being a consequence of outside forces, for example changes in the political framework, building legislation, budget allocations, technology, etc., and internal, relating to the changing influences within architecture culture, for example, how one envisions the idea of the city differs in the 1960s from the one in the 1980s.

The second parameter is that of time. It addresses the period during which a project starts, develops and finalizes. The large-scale projects are interventions of considerable size and complexity involving different interest and expert groups. Therefore, these projects are subjected to numerous modifying factors. Subsequently, modifying factors affect the design and implementation process, usually resulting in a relatively long endeavor. For example, the project for the redevelopment of Vaterland district in Oslo was continuously unfolding for some twenty years, before its cancellation, from the early 1960s to the early 1980s. During this period, there have been substantial changes within both the Norwegian society and architecture culture itself.⁷ Time aspect is important in the discussion on the large-scale architecture, as it illustrates the complexity and openness of the translation dialectic. In some cases, it may result in a condition where a large-scale project outdates itself even before its construction because its design process has lasted for too long while societal needs and ideals have radically changed.

The focus of translation is to address the making of a project as seen through an intertwining relationship between imaginaries, modifying factors and the subsequent time factor. *The making* is defined as much by the societal condition

⁶ Here I draw on the idea of *Idealfaktoren* and *Realfaktoren* from Scheler's sociology of knowledge, as discussed by Berger and Luckmann in *The Social Construction of Reality*. These terms are clearly reminiscent of the Marxian *Unterbau/Überbau* scheme. Society determines the presence, but not the nature of ideas.

⁷ The implementation period may also be much more condensed, as it was the case with the development of Aker Brygge. The competition was launched in 1982, while construction of the last phase was completed in 1997.

influencing disciplinary imaginaries, and by disciplinary imaginaries creating flexible frameworks capable of absorbing emerging societal, technological and cultural tendencies.

Analogies and Sensibilities

The issue of translation has a potential to open up a much broader field of discussion, for example in terms of ideology. As translation continually pends between disciplinary (existing) imaginaries, unfolding societal developments and the pragmatic reality of the project, one may ask at what point translation, when repeated through series of projects over a longer period, yields contours of new approaches towards the architectural project and the city itself. When does the specificity of project(s) transcend into generality, a tendency? Can one talk about ideology as a by-product of ongoing translational series where some projects function as *signals* of emerging architectural and urbanistic sensibilities detached from the ideology of their past; some as *trials* where new approaches slowly start becoming more operative; and some as *perfections* where they immanently function as operative models through which architects encounter their building assignments?

The reason why I use these analogies is due to their openness and interpretation potential. To approach the large-scale through the existing terminological apparatus from the urban theory may potentially be challenging because the large-scale, due to its size, organizational and programmatic complexity and subsequent newness given by the emergence of new building assignments, demands a terminology capable of enhancing blurred and hybridized conditions. For example, the notion of typology when projected on the large-scale may come short as it is capable of describing a project on the level of its constituting singular parts, and incapable of describing the totality of it as this totality is comprised of hybrids informed by contextual, structural, infrastructural, and organizational demands. As such, it is difficult to talk about typology of the large-scale, but rather about typological fragments within it. In addition, the large-scale is inseparable from a new type of building assignments. An example is the state universities of the 1960s, which when initiated, did not have a predefined model to follow, something that would be compensated by introduction of analogies relating to existing urban precedents and their underlying ideas.⁸ Therefore, I use terms such as signals, trials and perfections, as these illustrate making of models and emergence of new sensibility within architects' approach to the city and the large-scale architecture within it.

⁸ Here, I use the term *analogy* as a complementary to the concept of *imaginary* to indicate pragmatics by practicing architects in their encounter with new building assignments. The combination of the two does not represent 'fixed' formal and structural models, but rather a set of ideas and intentions simulating a certain type of urbanity. As such, my use of analogy is different from Aldo Rossi's, as he injects into its concept the notions of the individual and the collective memory, time and meaning. For more information on Rossi's concept of analogy, refer to Aldo Rossi, *Architecture of the City* (Cambridge: The MIT Press, 1982), 18.

Research Question(s)

The importance of this research lays in its *retroactiveness* – it goes back to the very beginnings of the urban project in Norway to the period from the late 1960s to the early 1980s, marked by the emerging interest for the existing city both as a context of urban interventions and as an inspiration for architectural and urbanistic practice. By examining the making of the early large-scale architectural sediments, one may understand better foundations and subsequent trajectories that the urban project would take later in the 1980s and leading up to the present day.

In a summarized version, the research’s conceptual framework revolves around two intertwining paths that chart the main body of this thesis:

It explores the imaginaries “as they are” when applied to a project:

Which underlying imaginaries informed conceptualization of the large-scale and to what degree these imaginaries reflected the renewed interest for the (existing) city, a tendency developing at the time?

It addresses the emergence of new approaches and sensibilities:

To what degree a specific type of architectural and urbanistic sensibility emerges due to the new (large-scale) building assignments in the period the late 1960s to early 1980s?

In addition, the thesis’ closing discussions revolve around a possibility of an ecology of large-scale architecture in Norway. Here, I reflect on general ideas and knowledge sediments articulated and accumulated within this type of architecture:

To what degree the continuous dialectic of translation as explicated through a series of large-scale interventions has implied something new – another type of ideals and formal models operative enough to encounter the contemporary city and its inherent architecture?

Research Structure

Part I – About Thesis: Focus, Method and Positioning

Here I explain the theoretical framework of the thesis. This research is both a research on *architecture*: where the large-scale is one particular type of architecture, and a research on the *city*: where the large-scale architecture is a medium through which the contemporary city (re)produces itself. I argue that the intersection between these two readings may expand the knowledge concerning how the translation of architectural imaginaries into the space

production practices unfolds. The conceptualization of a project is intrinsically connected to the architecture culture's field of ideas, whereas its implementation and reification within the real context (that of the city) is influenced by the socio-political, cultural and technological conditions of its contemporaneity. In order to decipher the dialectic of translation, I use an analytical model with several perspectives placed within the interplay between architecture as an autonomous discipline and a profession on one side, and architecture as a product of society on another side. Through this model, I discuss the terminology relating to the notion of the large-scale; the relationship between assignment and realized architecture; and the relationship between formal ideals and the design process itself.

Part II – Imaginaries, Ideas and Ideals

This part examines imaginaries, ideas and ideals of the period 1965–83 in Norway. My assumption is that there is a direct relation between ideas that circulate within the architecture culture and ideas that potentially become translated into projects. Disciplinary discourse and practice are inherently bound to publicity as facilitated within the space of books, magazines, exhibitions, lectures and actual built work. Subsequently, in order to analyze the process of translation of ideas and emergence of a new architectural and urbanistic sensibility within large-scale architecture, I map what actually influenced and engaged practicing architects in the period 1965–1983 in Norway. I review some of the key projects and publications while aiming at the emerging terminology. The prevailing tendencies, such as a transition from modernism, and emergence of fascination for the existing city as both a place of inspiration and a place of intervention, are examined here. As such, this chapter triangulates the landscape of imaginaries, ideas and ideals in order to shed light on the contexts and conditions within which large-scale architecture would develop along with the inherent urban project.

Part III – 'Learning from': Signals, Trials and Perfections

This part is a collection of three independent architectural and urbanistic episodes. The basis for the 'Learning from' discussions are three particular large-scale projects in Norway from the given period. These are contextualized within the societal historical context and then analyzed through six specific themes: the relationship between the large-scale and the city at large; the relationship between the large-scale and its immediate surrounding context; the modes of organization within the large-scale; the capacity of the large-scale to perform as *Struktur*; the undelaying infrastructure principles; and the developmental possibilities. These themes offer an in-depth analysis of the chosen case study projects, as they touch upon architects' ideas and

imaginaries – what architects intended to do; and actual designs – how they actually did it. As such, these themes illustrate how the translation dialectic unfolded itself within the framework of the large-scale. Finally, findings and “learning from’s” are discussed in relationship to the analysis model, opening up the possibility to make additional insights beyond the three particular cases.

Part IV – Notes on empiric material and closing discussions

In this part, I offer closing remarks on the challenges that the empiric material has yielded. Potential similarities and differences within the material relating to the three chosen cases are at the very focus. In addition, four theoretical propositions are projected based on the findings from the analysis. These relate to the idea of emerging sensibility as discussed through the critique of modernism, context, pedestrianization and strategy/form. At the end, I speculate on the potential reading of the studied large-scale architecture.

Knowledge, Ideal and the Large-Scale

The field of my research may be triangulated through three terms relating to the notion of architecture profession: knowledge base, working method and formal ideal.⁹ These are used as an underlying backdrop for considerations on the large-scale, and indirectly chart discussions within my thesis.

Knowledge base

The issue of knowledge base relates to the architectural knowledge underlying the large-scale projects: what knowledge was available as the architects started encountering the emerging large-scale building assignments; what knowledge evolved and what new knowledge surfaced as in the aftermath of these new building assignments. The notion of knowledge base is examined through the three overlapping fields: that of architectural tradition(s), that of understanding the environment as material form, and that of legitimation. The first relates to the architecture culture of the time and its prevailing (ideological) tendencies. The second draws on the above-mentioned notion of the societal context: the large-scale projects are approached as material sediments of the socio-cultural zeitgeist of the given period. The third casts light on how the involved architects legitimized their projects in terms of the narratives and imaginaries projected.

Working Method

The notion of working method explores how the making of the large-scale projects unfolded on behalf of the architects. What is essential here is to discuss to what degree architects’ work, when dealing with the large-scale, was conditioned and influenced by the outside forces: was it a direct projection

⁹ Here, I draw on Karl Otto Ellefsen article “Arkitektur og planlegging,” *Byggekunst* 7 (1993): 448–457.

of architectural ideology, or a collaborative endeavor between the architect and various expert and interest groups? An inherent part of this discussion is also through which format important design decisions were taken, for example a vital issue to be discussed is the setup of the competition juries deciding the outcome of competitions, and the organizational framework of the architectural offices doing the large-scale projects.

Formal Ideal

Finally, the notion of formal ideal is treated. In architecture history, the chosen period is characterized as a time when the modernist epoch ended and postmodernism was unleashed. Here, I explore the possibility of continuity: to what degree large-scale architecture of the period was subjected to one particular or several formal ideals. This issue is important, as the socio-cultural context of the period is under strong transformation, so I explore how the changing of the outside context influences the implementation of the formal ideal itself.

A Decade of Conflict¹⁰

The period that this research addresses (the late 1960s to the early 1980s) represents the time when the scale of economy dramatically expanded while influencing the capital basis from which the building assignments would emerge. The Norwegian BNP had a continuous annual increase by almost 5% during the 1970s.¹¹ Norwegian currency strengthened its value. It is also a period of changing needs and roles where the definition power of the state would inevitably be challenged by the emerging markets (either those with the national or global prefix).

The thesis' initial phase covers the mid-1960s. As seen from the European perspective, this was the closing chapter of the over-all post-war modernization project. The needs for mass housing, mass education, and mass mobility resulted in new types of building assignments encountered on the large-scale by the European states respectively.¹² As seen from the local Norwegian perspective, it was the era of the emerging welfare system as defined within the framework of the social-democratic project. **(3)** The state's planning control and regulation were two main prerequisites within an all-encompassing political and social set-up. The state was an ultimate initiator, administrator and consequently, the builder of the new environment. The research concludes with the early

¹⁰ A more in-depth description of the societal framework will be given in the introduction of each case in Part III. Francis Sejersted coins the term "A Decade of Conflict" in *The Age of Social Democracy: Norway and Sweden in the Twentieth Century* (Oxford: Princeton University Press, 2011).

¹¹ <https://www.ssb.no/nasjonalregnskap-og-konjunkturer/statistikker/nr/aar/2001-02-07>.

¹² Tom Avermaete describes these process within the context of the post-war societal developments in France. For more, refer to Tom Avermaete, *Another Modern: The Post-War Architecture and Urbanism of Candilis-Josic-Woods* (Rotterdam: NaI Publishers, 2006).



3: The Labor Party's PM, Einar Gerhardsen, on the Labor Day Rally at Youngstorget in 1965 (Photo: Arbeiderbevegelsens arkiv og bibliotek).



4: The first day at work. The Conservatives' PM, Kåre Willoch in 1981 (Photo: Johan Brun/*Dagbladet*).

1980s. From the perspective of Western Europe, this period characterizes the emergence of the post-industrial transformation and knowledge-based society. In terms of the Norwegian socio-political context, it is the very eve prior to the inception of the neo-liberal project. (4) This was also the period when the Brent capital started arriving. If the 1970s represented a partial exodus of the investment capital from mainland Norway into the emerging offshore industry, the 1980s would signal its return back onshore. A new type of investors emerged – those private ones with a capacity to develop projects, which went beyond the character and scope of one singular building.

The studied period is usually described through the idea of an abrupt transition, either being a heyday of the critique of modernist architecture and planning practices,¹³ or being an installment of a new neo-liberal governing paradigm.¹⁴ Within such an approach, the notion of a historic rupture is present: the old (ideological) regime outdates itself and subsequently concludes its validity, while a new regime takes over.

In this thesis, I use Francis Sejersted's take on the history of Norwegian social democracy: the societal changes of the period are not viewed as the conclusion of something old, but as the beginning of something new.¹⁵ Such an approach has a potential to open up new readings of that specific period as it allows the possibility of different (old and new) regimes unfolding simultaneously. It does not base itself on a sudden and clear-cut transition from one regime to the other, but on a transitory overlap. What I refer to as the old regime was undoubtedly the regime bound to the modernist planning ideas and urban expansion project. It is a common understanding that the city¹⁶ was a new territory for the architects practicing at the time,¹⁷ as the planning ideals in the post-war period were bound to the idea of dissolved space. Nature and building in nature were the denominators of the architecture's reference field, whereas the interest in the existing city was almost non-existent. Ignorance was an ideal: the perception of architect's role was bound to his creative capacity and not to the actual knowledge.¹⁸ My hypothesis is that the studied period represents a time of architects' maturing and learning how to re-approach the city and the new large-scale building assignments. I address to what degree architects would start finding operative strategies to encounter the emerging societal, architectural and urbanistic complexities.

13 Charles Jencks' statement in the aftermath of the demolition of Pruitt-Iggo, "Modern architecture died in St. Louis, Missouri, on July 15, 1972, at 3.32 pm (or thereabouts)," is unavoidable when talking about this period.

14 Kåre Willoch's becoming the prime minister of Norway in 1981 is usually portrayed as a rupture within the social-democratic project.

15 Francis Sejersted, *The Age of Social Democracy: Norway and Sweden in the Twentieth Century* (Oxford: Princeton University Press, 2011), 302.

16 The term 'city' is used to describe existing city core, or what is usually referred to as European city.

17 One should keep in mind that the city was a place of intervention in the pre-war years in Norway, both in terms of circulating ideas and ideals, as well as a place of architectural and urbanistic intervention. Here, it is unavoidable to mention Harald Hals and Sverre Pedersen.

18 Karl Otto Ellefsen, "Arkitektur og den norske byen," *Arkitektur i Norge Årbok 1988* (1988): 8.

A Retrospective

My claim is that this phase and its large-scale sediments have not been discussed systematically and sufficiently enough. The available sources treating this topic are few and random. The main Norwegian architecture magazine *Byggekunst* did not dedicate much attention to this particular topic either.

In 1961, Per Cappelen wrote “Superdimensjonenes inntog” [The Arrival of Super Dimensions] published in *Byggekunst* 1/1961. (5) This article, being a plea for a new plan for the center of Oslo, discussed implications of the modernization project that was unfolding in the city. He focused on a new scale, as exemplified through several of the city’s recently completed landmarks such as Hydrobygget, Shellbygget, Regjeringsbygget and Phillipsbygget, where the high-rise model was seen a model of modernity. Cappelen was not considerably enthusiastic about it. He commented on the high-rise’s critical impact on the perception of the city as seen from the perspective of the surrounding landscape and from the local situations where the new scale disconnected from the existing Christiania scale – the scale of the 19th century Oslo. Cappelen touched also on new traffic systems needed for supporting the emerging city. Interestingly enough, his argument urged for a more integrated model where “houses melt with traffic in super-super-dimensions, like in Le Corbusier’s proposal for Rio de Janeiro, Kahn’s “Living City” and Tange’s proposal for Boston Bay.”¹⁹

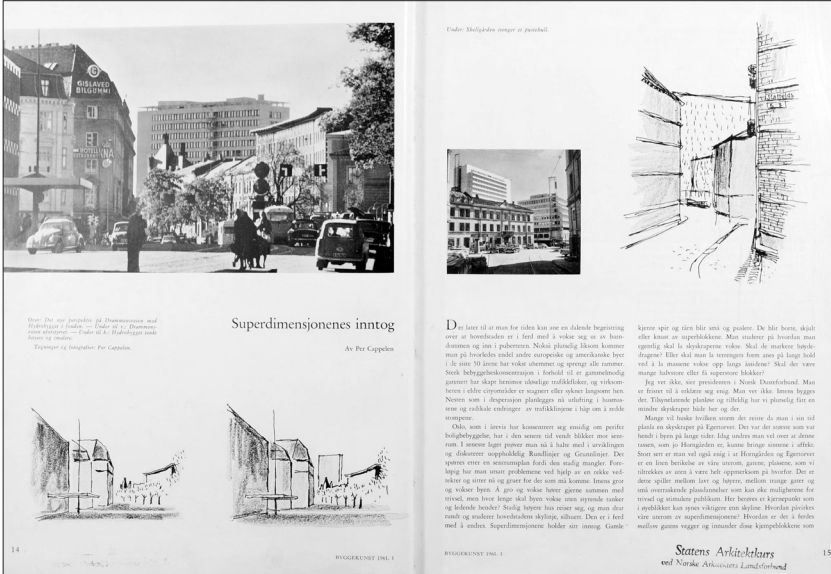
One should mention the article by Peter Pran from 1968 “Structural Systems for the High-rise”,²⁰ where he reviewed at the time an unbuilt project, John Hancock Center in Chicago by Skidmore, Owing & Merrill. (6) The article discussed complexities behind such a large-scale project where the issues of structure, infrastructure, multi-programming and the project’s relationship to the urban context were examined. Pran fluently intertwined these with an effort to illustrate the logic of the large-scale where also design decisions were very much conceived within the framework of economic rationality and efficiency. As such, this article approached the topic of the large-scale through the perspective of a profession.

In 1977, Christian Norberg-Schulz reviewed newly completed Veritas Complex by Kjell Lund and Nils Slaatto on the shores of Oslo Fjord at Høvik. (7) He approached the project in relation to its making of place discussed through the notions of space and local character, where the project’s stringent structuralist organization *poetically* managed to absorb topographic features of the surrounding landscape. In addition, CNS places the project in line with projects by Pietillä, Utzon, Stirling, Moore and Portoghesi, as an example of a new phase within the modern tradition, other than ‘the international style’.²¹

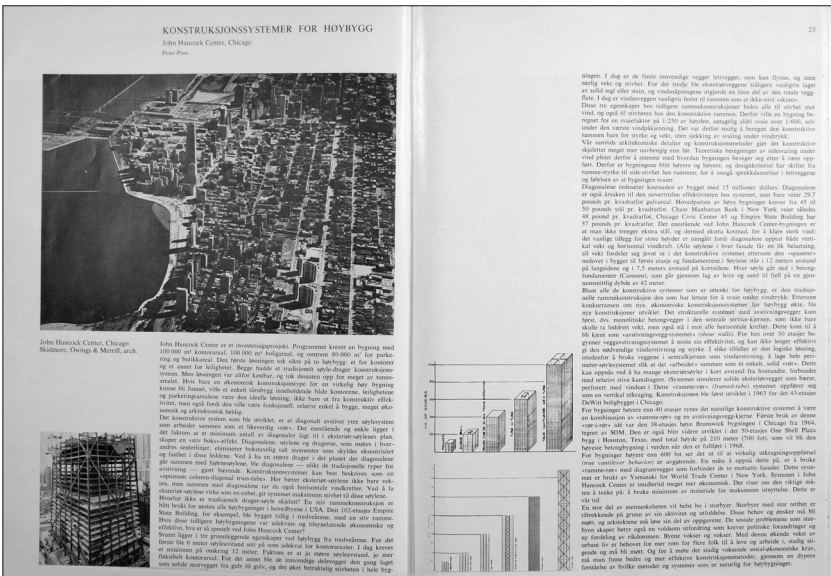
19 Per Cappelen, “Superdimensjonenes inntog,” *Byggekunst* 1 (1961): 21.

20 Peter Pran, “Konstruksjonssystemer for høybygg,” *Byggekunst* 1 (1968): 24–28.

21 Christian Norberg-Schulz, “Veritas-Senteret,” *Byggekunst* 2 (1977): 44.



5: "Superdimensjonenes inntog" by Per Cappelen (Facsimile: *Byggekunst* 1/1961, pages 14–15).



6: "Konstruksjonssystemer for høybygg" by Peter Pran (Facsimile: *Byggekunst* 1/1968, pages 24–25).



7: Veritas Complex, Lund & Slaatto, 1976 (Photo: Jon Haug).

One whole issue of *Byggekunst* 5/1979 was published under the title “Store bygg” [Large Buildings], presenting three completed projects: Telje-Torp-Aasens’ Police Headquarters in Oslo (8), Aros’ Statoil Administration Center at Forus (9), and Henning Larsen’s University complex at Dragvoll in Trondheim (10). The presentations were two-fold: on one side, a traditional presentation by the architect, consisting of a textural description, projection drawings and photographs, while on the other, a critique by an independent reviewer. Out of three reviews, the most interesting was one written by Siv Bleiklie on Larsen’s project, where she eloquently managed to balance the discussion on the translation of structuralist ideas into the built form. Still, what was absent was consciousness about the notion of large-scale as an architecture having its own specific logic.²²

There was also Francis Sejersted’s essay “Who can save City?” [Hvem kan redde City?] from 1990 discussing the redevelopment of Vaterland by DnC and F.S. Platou. This is a purely historical review of the processes surrounding the project and not so much an examination of the very nature of the large-scale. Still, the article offered numerous insights into the decision-making by both the architect and the powerful client, as well as portraying changing socio-cultural and political conditions of the period from the 1960s to the late 1970s affecting the making of the project.

The story of the Norwegian large-scale architecture as it was written during the 1980s is potentially problematic. My claim is that the large-scale projects of the period late 1960s – early 1970s, have mostly been read through what happened in the immediate aftermath, being cemented as an antithesis to the events and precedents taking place later in the 1980s in the newly coined ‘neo-liberal’ city. An example of such a historical approach is Peter Butenschøn and Tone Lindheim’s *Det Nye Oslo* published in 1987 – a book that portrayed the transformation of Oslo where precedents of the 1960s and 1970s, for example the projects for the redevelopment of Vaterland, were seen as absolute failures. Rather, I approach the studied period as a time when architects started to learn how to intervene in an urban context and how to encounter the large-scale within the city itself. Therefore, I consider my thesis as a *retrospective* of a phase that prepared the outset for the neo-liberal processes. The chosen period is as one chapter in a continuous and evolving story of the Norwegian city and its architecture.

²² Siv Bleiklie, “Universitetet på Dragvoll,” *Byggekunst* 5 (1979): 322–323. The other two reviewers were Ketil Kiran writing about Telje-Torp-Aasens’ Police HQ, at Grønland and Louis Kloster about Aros’ Statoil Center at Forus.



8: Police Headquarters in Oslo, Telje-Torp-Aasen, 1977 (Photo: Teigen).



9: Statoil Administration Center at Forus, Aros, 1979 (Photo: Uncredited, taken from *Byggekunst* 5/1979).



10: Trondheim University at Dragvoll, Henning Larsen TS, 1979 (Photo: Kings Foto).

Investigation Approach

This thesis relates to the research tradition of architecture books on the cities.²³ What it has in common is that it springs out of the appreciation for how contemporary society, along with its socio-political and cultural layers, manifests itself through the built environment. The contemporary city and its architecture are approached as they are, being an explicit image of the emerging societal structures, but without projecting a critique. Koolhaas draws on the early 20th century New York and its emerging metropolitan culture, Venturi/Scott-Brown/Izenour explore the 1960s' Las Vegas and its new consumer and car-based culture, while Kajijima/Junzo/Tsukamoto address Tokyo of the 1990s in the aftermath of the Japan's economic crisis.

My thesis, like the above-mentioned books, uses an analytical approach towards the built environment. It systematically analyzes specific architectural sediments in order to construct a bigger picture, an understanding of the city at large. Koolhaas analyzes the making of Rockefeller Center, UN Headquarters and the Empire State Building. Venturi/Scott-Brown/Izenour explore Las Vegas' Strip, while Kajijima/Junzo/Tsukamoto catalogue fifty anonymous buildings, from Pachinko Cathedral, to Sex Building to Apartment Station. Each of these yields an understanding of urbanity representative of the respective cities.

The third similarity is on the thematic level. The urban contexts that these books consider represent conditions, which are so specific (and extreme) that they directly affect architecture's field of ideas, something that yields complex and hybrid projects. The issues of program, scale and technology, among others, are at stake as the existing architectural terminology is not capable to describe fully the emerging architectural manifestations. A typical example of new terminology would be the idea of *duck and decorated shed* by Venturi/Scott-Brown/Izenour, used to describe the architecture of Las Vegas.

The fourth and all-encompassing similarity is that of the shared conceptual approach towards the idea of the existing city and its potentialities to project arguments for architecture. Within this tradition, the existing city is approached as a repository of potential arguments for architecture.²⁴ The notion of *the ordinary*²⁵ is a key point here, being both a site of inquiry and potentially a critical agent for the transformation in the contemporary city. An (*ordinary*) urban condition within an existing city is identified and subsequently scrutinized in order to uncover and construct an (architecture and urbanistic)

23 Some of the main carriers of this tradition are books Robert Venturi, Denise Scott-Brown and Steven Izenour, *Learning from Las Vegas* (Cambridge: The MIT Press, 1972), Rem Koolhaas *Delirious New York: A Retroactive Manifesto for Manhattan* (New York: Monacelli Press, 1978) and a more recent Momoyo Kajijima, Kuroda Junzo and Yoshiharu Tsukamoto, *Made in Tokyo* (Tokyo: Kajijima Institute Publ. Co, 2001).

24 Enrique Walker coins this notion in his lecture "The Dictionary of Received Ideas" given at the Berlage Institute, January 27, 2009, http://www.theberlage.nl/events/details/2009_01_27_the_dictionary_of_received_ideas.

25 The notion of the ordinary refers to the ideas of Alison and Peter Smithson, formulated in 1950s.

imaginary, which is then reproduced and projected back onto the very idea of city and architecture elsewhere. Koolhaas' argument of *manhattanism* (where the all-embracing idea of programmatic congestion is paired with the potentials of technology) is formulated out of the urban condition of Manhattan, and as such is projected back as an ideal for architecture and urbanism. Similarly, Kajima/Junzo/Tsukamoto's notion of *pet architecture* bases itself on small-scale architecture interventions within the urban condition of Tokyo, so-called *da-me* architecture (bad and unclaimed architecture), and as such it produces a repertoire of ideas and values that may be reproduced elsewhere. These architects are tolerant of reality:²⁶ they engage with reality in order to construct the idea of the existing city. On one hand, they scrutinize the existing city as a repository of potential arguments in order to inform their practice of architecture. On the other, they are directed towards reconstructing the idea of the city, giving it a re-invented *meaningful* architecture, either through the archaic monuments of a Eurocentric memory (Rossi), the semiotic boards of Las Vegas (Venturi, Scott-Brown, Izenour), or New York's retroactive dreamscapes (Koolhaas).²⁷

My claim is that the large-scale urban developments have a potential to tell the story of the Norwegian urban condition, simultaneously as they may help define a new terminology relevant for the field of architecture. This research revolves around this two-sided question and therefore it may be read both as a research on *architecture*: where *the large-scale* is understood as one particular type of architecture appearing within the Norwegian urban condition; and as a research on the *city*: where *the large-scale* is understood as a medium through which the contemporary Norwegian city is produced.

The Large-Scale Project

The term 'large-scale architecture' may be understood in many different ways, from referring to the sheer size of a project, its performance in relation to the surrounding city, and to a more abstract understanding of the forces of urbanization. In its broadness, the term large-scale architecture attempts to describe what happens when building assignments – and therefore buildings themselves – become so big and complex that they start demanding a more specific approach.

To define exactly when a building assignment enters the large-scale condition is impossible; what is possible to address is the nature of this condition.

²⁶ The expression 'tolerant of reality' is used by Rem Koolhaas and Hans Ulrich Obrist in the interview with Fumihiko Maki to describe openness by Metabolist architects to enhance the evolving modernity of the post-war period and its subsequent impact on Japanese urban condition. Rem Koolhaas and Hans Ulrich Obrist, *Project Japan: Metabolism Talks* (Köln: Taschen, 2011), 313.

²⁷ Reinhold Martin, Kadambari Baxi, *Multi-National City – Architectural Itineraries* (Barcelona: Actar, 2007), 9.

There are two sides within this discussion. One is the large-scale treated as an architectural problem and the other is the large-scale treated as an urbanistic problem. The former relates to what challenges occur in terms of the articulation of the project itself: how the large-scale influences the design choices and design process. The latter relates to how the city itself corresponds to the large-scale architecture, or in simple terms, how the large-scale architecture affects the urbanity of the city.

The large-scale treated as an architectural problem revolves around the relationship between the autonomy and the profession of architecture. At the center is the trinity between the (architect's) idea, its formal translation and the scale of the building assignment. It is a common understanding that the architecture's world of ideas is universal and that the same ideas may be applied independently from the scale of building assignments drastically varying in scale, from a university complex to a single-family house. My claim is that architectural ideas – imaginaries coming from the discipline of architecture – are still present, but the scale (and the subsequent complexity) of a building assignment conditions these particular ideas as each scale has its own constraints and liberties defined by the specific fields of knowledge needed for a substantive and creative treatment of the assignment.

With this hypothesis, I propose that the large-scale is contingent on the idea of architecture as a profession and to an architect as an expert with knowledge-based expertise. In addition, due to the sheer size and complexity of the building assignment, a large-scale project depends on the range of experts capable of integrating numerous technologies and processes. The presence of outside forces is a reality, which dialectically conditions the design and the articulation of the building mass.

This may be related to Koolhaas' theorem of bigness.²⁸ According to this theorem, the impossibility to control the large building mass through a singular architectural gesture results in the autonomy of the parts where these remain committed to the whole. Here one may understand this impossibility as a consequence of different mutually interacting non-architectural constraints and regimes, for example the prerogatives of property development and infrastructure authorities. Guided by their own inner logic, these outside regimes demand an architecture that operationalizes and absorbs. Usually, the result is a type of project, which consist of several building bodies conceptualized around a common structural and infrastructural logic, while usually being developed in stages, where each stage is optimized to be as operational as possible. Furthermore, according to *bigness theorem*, the presence of mechanical and other modern building technologies needed to make the large-scale to function

²⁸ Rem Koolhaas, "Bigness and the Problem of Large," in *S,M,L,XL*, edited by Rem Koolhaas and Bruce Mau, (New York: Monacelli Press, 1995), 494–516.

affects the classical repertoire of architecture where the issues of composition, scale, proportion and detail become questionable. One may discuss this condition more as a transition from one type of constraining repertoire to another, the classical one being defined by the autonomy of architecture replaced by the repertoire of urbanization forces within the modern metropolis.

An unavoidable perspective in this discussion is Hilberseimer's notion of *Großstadtarchitektur*. It describes a type of architecture having its own forms and laws directly subjected to the mechanisms of the capital flows and urbanization processes.²⁹ The term approaches the architecture autonomy, as it proposes a new dialectic relationship between architect and other experts groups. Architectural project is still possible, but within a reformulated framework. In addition, *Großstadtarchitektur* addresses also the large-scale as an urbanistic problem: it offers a possibility to discuss large-scale architecture both as a product of urbanization, and as an agent that influences and reformulates the logic of urbanization itself.³⁰ Here, one may relate back to Koolhaas' idea of bigness, where this condition is capable of creating its own contextuality, paradoxically condensed by Koolhaas in the phrase *fuck context*. The accumulation of bigness generates a new kind of city where each of its *bigness* entities is urban in itself due to the quantity and complexity of the facility it offers. Subsequently, as Koolhaas claims, the bigness does not need the city, "it competes with the city; it pre-empted the city, or better still, it is the city".³¹

In their nature, both the notion of *bigness* and that of *Großstadtarchitektur* are open to embrace proactively the reality of the city while questioning how this reality is to inform architecture itself. These two terms are in opposition to Maki's idea of *collective form* (*megastructure*) and Alison Smithson's *mat-building*. Both mat-building and collective form are two architectural imaginaries suggesting how to articulate the large-scale itself. They are architecture's answer to one particular problem, as they function more as strategies giving formal order and less as overall open-ended operative approaches. Perhaps, that is why Reyner Banham claims that megastructural movement, within which Maki may be contextualized within, became rapidly exhausted.³² Megastructure, as a term, builds more upon the image of a flexible

29 Ludwig Hilberseimer, *Metropolisarchitektur* (New York: Columbia University GSAPP Sourcebook, 2012), first German edition was in 1927 under the title *Großstadtarchitektur*.

30 Here I draw further on Pier Vittorio Aureli's argument in *The Possibility of an Absolute Architecture*.

31 Rem Koolhaas, "Bigness and the Problem of Large," in *S,M,L,XL*, edited by Rem Koolhaas and Bruce Mau (New York: Monacelli Press, 1995), 515.

32 Reyner Banham says in the epilogue of his book on megastructures: "So too with megastructure: its worst significations; ultimately, were in the eyes of architects, in some cases the same architects who had most loudly proclaimed its virtues when the concept was still new. In its end, as in its beginning, its most potent meaning is the architectural one, visually perceived by men at drawing-boards and modelling benches. As a way of imposing a form of order on 'the chaos of our cities' it was an invention of architects, whatever other tides of opinion appeared to support it; and it was finally abandoned by them because it offered to generate a form of order that they themselves could not manage." Reyner Banham, *Megastructure – Urban Futures of the Recent Past* (New York: Harper & Row Publishers, 1976), 216.

and interchangeable system, and less upon the actual performance of this system. As such, its final product is a static form that looks like a system, while it does not fully function as one. According to Banham, the shortcomings of megastructure are the fact that architect continued with total designs, interventions of immense scale based on formal gesture, something that usually resulted in incapability to address the issues of changing conditions, from fluctuations in economy to changing social models.

This review has touched upon the terminology describing to the notion of the large-scale. As summed up, there are three hypotheses that will also reappear in the course of this thesis:

- A large-scale building assignment demands a specific approach, as a large-scale project is something other than an oversized big building. This approach goes beyond the idea of a single architectural gesture, while it still originates within the disciplinary field of architecture.
- A large-scale project is dependent on different knowledge regimes as the complexity of the building assignment presupposes application of different technologies within both the design and the building process. Within this understanding, an architect is an expert with a special expertise.
- The large-scale affects the idea of urbanity as such projects have a capacity to create their own contextuality. They are able to promote ‘citiness’ because of their sheer size and the mixed programmatic content.

Cases

As mentioned before, the period from the late 1960s to the early 1980s reflects changing conditions for architecture production. This claim offers several challenges in terms of what criteria and what cases are to be chosen in order to unfold the story of the Norwegian large-scale architecture and its implications on the city itself within this highly turbulent period. Here, what has been a guiding thread is my intention not to approach large-scale architecture as a static type of architecture belonging to one particular societal context as well as being defined by exclusiveness of its site and program, but as an architecture defined by the multiplicity of overlapping, yet continually modifying complexities. The latter projects a hybrid idea of large-scale architecture as both a type of architecture and a type of an architectural condition. Subsequently, this has forwarded me in a direction of a comparative approach where I analyze several cases because comparison as a method requires attention to the question of dependence/independence between entities compared.³³ Drawing further

³³ Francis Sejersted, *The Age of Social Democracy: Norway and Sweden in the Twentieth Century* (Oxford: Princeton University Press, 2011), 23.

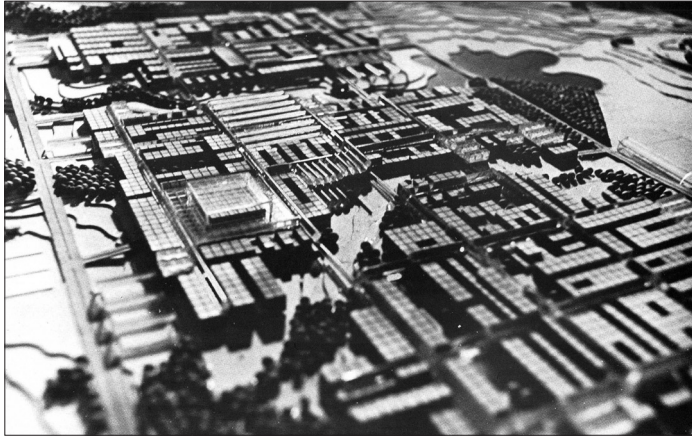
on Sejersted's notion, the comparison must be linked to an investigation of relations between the entities compared. Following on this, I have approached the choice of cases through the criteria of temporality and character. The first one suggests that the choice of case projects should be done in such a manner to fully embrace and cover the studied period: some of the cases should belong to the period's beginnings, while some to its endings so that eventual transformations within the idea of the large-scale architecture are potentially more apparent. The second one focuses on general differences and similarities of potential cases in order to get as complete picture of the large-scale architecture as possible. Besides departing criteria of project being both an urban plan and/or building complex, I have taken into account several other sub-criteria in order to get a selection of projects that ensure openness within the discussion on the large-scale:

- Context (where is the site, in the city or on its outskirts?)
- Program (how programmatically diverse a projects is?)
- Client (who is the client initiating the project, state or private?)
- Pretext (what is the project a result of, competition or commission?)

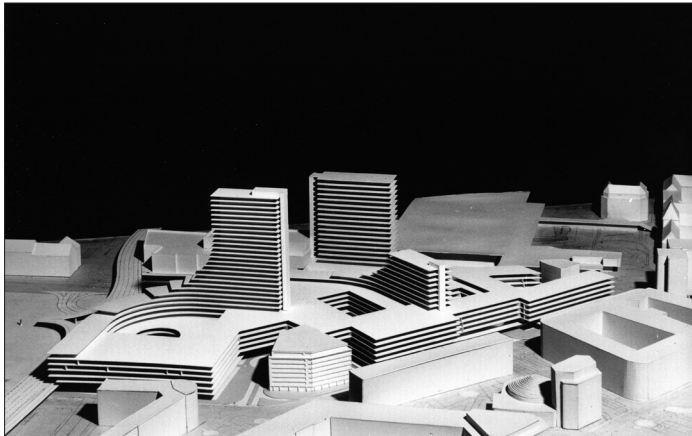
Subsequently, I have chosen to select case projects that complementary engage multiplicity of these criteria: projects located in different urban settings; projects with varying programmatic content; projects initiated by the state and those by private clients, as well as the projects that are a product of architectural competitions and direct commissions. By using case projects with such a diverse background, I intent to uncover potential lineages and breakages both within the term of the large-scale, as well as within the process of translation of ideas, ideals and imaginaries into the physical structure.

I have selected three different large-scale projects occurring in three different periods:

- Henning Larsen's project for Trondheim University at Dragvoll (1968–70): a project for the new university complex initiated by the state, on the outskirts of Trondheim; a result of a two-stage architectural competition. **(11)**
- F.S. Platou's project for DnC at Vaterland (1967–80): a redevelopment project for a shopping and office complex at Vaterland, one of the most central areas of Oslo; a result of a direct commission. **(12)**
- Telje-Torp-Aasen's competition proposal and the first rework of the project for Aker A/S at Nyland Mekaniske Verksted (known as Aker Brygge) (1983–84): a privately initiated mixed-use development project in the former industrial compound at the inner city harbor of Oslo; a result of a competition and negotiated commission. **(13)**



11: Trondheim University, Henning Larsen (Photo: HLTS).



12: DnC project for Vaterland, F.S. Platou (Photo: FSP).



13: Aker Brygge, Telje-Torp-Aasen (Photo: TTA).

Thematic Structure

The thesis' thematic framework approaches the three selected projects as architectural manifestations of the *large-scale*. I intend to re-read these cases *as they are* by asking why these projects turned out precisely the way they did. As the notion of translation is at the core of this research, the thematic analysis will address the projects' relationship to the concurrent ideas within the architecture culture (*the hegemonic approach to architecture*)³⁴ and to the particularities surrounding the making of the projects themselves. The latter ones are those outside forces of politics, economy, culture and technology as earlier explicated through the notion of modifying factors.

The thematic structure will be the same in each of the cases despite differences between the projects. The reason why is the fact that by putting these large-scale projects within the same framework, I intend to identify which imaginaries have been constant in the relation to the conceptualization, articulation and legitimization of the large-scale projects, and which have evolved during the studied time period. In addition, the same applies to the outside modifying factors. As the three selected projects take place within different contexts, and slightly different moments in time, the implications caused by these modifying factors may subsequently differ.

This identification of the assumingly *fixed* and *changing* imaginaries and modifying factors will make more visible the dynamic and dialectic of translation process. The former relates to the temporality of the translation process. It addresses the flexibility and openness of imaginaries in their encounter with the reality of building: Why were some of the cases directly executable where as others had to undergo drastic modifications, and to what degree this was a consequence of the departing imaginaries? The latter relates to the actual interaction between the imaginaries and modifying factors, how they intertwine and subsequently affect each other.

I am inspired by Jacques Fredet's³⁵ article "Six analysis criteria for seven universities" [Six critères d'analyse pour sept universités] published in *L'Architecture d'aujourd'hui* 137 4/5 (1968), as it comprehensively illustrates the complexity of the large-scale. It identifies six different themes important in the discussion about new universities, starting from the larger urban environment and then zooming in to the interior organization and articulation of these complexes. Yet the framework which it offers is also applicable to the

34 Elisabeth Tostrup, *Architecture and Rhetoric: text and design in architectural competitions, Oslo, 1939–1997* (London: Papadakis, 1999).

35 Jacques Fredet is a French architect and a professor at the École Nationale Supérieure d'Architecture de Paris-Belleville. Retrospectively, he could be seen as a part the Aldo Rossi tradition of reinvention of architecture through the historical readings of the city. In the 1970s, he conducted research on the typologies of the Haussmann's Paris. In 2003, he published an encyclopedic book on the small-scale Parisian architecture, *Les Maisons De Paris: Types Courants De L'architecture Mineure Parisienne De La Fin De L'époque Médiévale à Nos Jours, Avec L'anatomie De Leur Construction* (Paris: Éditions de l'Encyclopédie des Nuisances, 2003).

large-scale projects occurring in the 1970s and the 1980s. For the sake of the analytic clarity, I have used term *the large-scale project* instead of the term the university development (as originally used in Fredet's text). Following thematic structure, I will chart the analysis of the cases:

The large-scale projects in relation to the larger urban context

The urban environments, within which the large-scale projects have been planned, have gradually been transformed through the implementation of the new infrastructures such as new road systems and the public transportation. By analyzing the architect's introductory descriptions and drawings that formulate the project's performance on the large urban scale, I aim to investigate in which ways the changing context on the city scale, along with its inherent urbanization processes, have influenced the conceptualization of the large-scale projects. Consequently, I intend to analyze the relationship between the mass mobility and the large-scale as portrayed within these projects.

The large-scale projects in relation to the immediate surroundings

The theme investigates how the involved architects have approached the issue of the surrounding context: to what degree it has influenced the conceptualization of the large-scale developments. I will be looking at the drawings showing the immediate relationship between the projects and their surroundings and how possible integration ideas have been "taken" into the projects. The theme revolves around the causality between the project's size and its surrounding context: at what point do these two aspects stop being related to each other and the project gradually starts becoming an independent enclave within the urban context?

The mode of organization

This theme investigates in which ways the societal processes have influenced architects' terminology. By focusing on the references (inspirational images and drawings) used in the project descriptions, I will explore to what degree the architects have invented analogies, metaphors, and imaginaries capable of contextualizing these projects within their own socio-political contemporaneity. In addition, I will extend my analysis to include also the architectural drawings in order to see to what degree these references have been prescriptively used (translated and finally implemented), both on the organizational and structural level.

Infrastructural principles

This theme investigates how the issues of infrastructure have influenced the large-scale projects. Within this context, infrastructure is considered as internal

logistics and servicing (air conditioning, heating, electricity, gas, etc.). Through the analysis of the drawings and conceptual diagrams, I will explore to what degree the infrastructural demands have become the spatial ones and also to what degree the main organizational concepts for the large-scale projects have been the concepts solving the projects' infrastructure. I also intend to analyze the architects' rhetoric behind the notion of infrastructure: what vocabulary they have used to describe the movement flows within the projects. The aim is to explore to what degree the notion of communication has evolved from referring to logistic into being approached as the space of social encounter.

Struktur/Structure

This theme explores how the notion of *die Struktur* (ordering principle) is implemented into the material reality of the projects. I will be analyzing primarily the project drawings in order to explore to what degree the selected projects perform as a *Struktur*, as a morphological framework able to absorb organizational, structural and infrastructural demands. This analysis revolves around the question of how these projects function as large-scale organizational systems. In order to approach this issue, I will search for other concepts that architects have invented in order to operationalize the idea of *Struktur*, for example the notions of generality, rationality, repetitiveness and potential structural neutrality, and also how these have been translated into the material reality of the projects.

Development possibilities

This theme will expand the notion of *Struktur – Structure* to also incorporate the issues of developmental possibilities. The size and capacity of the large-scale projects have been either defined through the projections of the planning authority of the state (the 1960s) or by the market demands (the 1970s and 1980s). Through this theme, I will analyze the projects' phasing diagrams and their spatial translations in order to examine how architects approached the developmental projections and consequently how the notion of *future* has been translated into the built medium. This theme revolves around two questions: what happens with architecture when the time aspect has become one of the dimensions within the space production and to what degree the notion of *die Struktur* has managed to absorb it while fulfilling the demands of the internal flexibility and the external expansion.

These themes address the translation of ideas, ideals and imaginaries within the framework of the large-scale architecture. On one side, I examine what architects claimed they intended to do, while on the other, I scrutinize how they actually did it as explicated through drawing material, models and

illustrations. In addition, a part of these considerations is a discussion on the external influences, so-called modifying factors. Within such a framework, iconography is not treated as one specific theme, but it appears indirectly as a sub-theme integrated within the six suggested ones. My assumption is that formal and iconographic considerations are inevitable, following up on Ivan Leonidov's 'form is necessary-content must have form': formal and iconographic considerations are an inherent part of a project being both an implicit pretext and a consequence of other overarching considerations.

The potential shortcoming of my thematic framework is that it does not treat later transformations of large-scale projects, for example, those happening several years after a project is implemented and built. Firstly, the reason for such a choice is my intention exclusively to problematize the very making of the large-scale. I focus at one particular moment within the lifespan of a project: these six themes x-ray the very inception of a large-scale project as an architecture. Secondly, large-scale architecture is a relatively new type of architecture in Norway. Implemented projects that fall in this category are not that old; the first examples were implemented in the late 1970s, and as such have not been transformed any significantly. One of the first more radical transformations happened at Aker Brygge in 2013.

Empiric Material

The scope of the research material is extensive: it allows me to approach the case study projects in their broadness, both as representative cases of certain tendencies within the architecture culture of the studied period and as real projects trying to solve the pragmatic reality of building. The first type relating to the architecture culture of the late 1960s and early 1980s consists of original texts (architecture books, exhibition catalogues and architecture magazines) written and published in the studied period. The second type, relating to the case study projects themselves, explores a myriad of primary and secondary sources.

Primary sources relating to the case study projects:

- Original drawings and illustrations
- Reproduced drawing material in the magazines and other publications
- Architects' own reproductions (internal booklets)
- Interviews with involved architects and other contributors (advisors, developers, jury members) – these have been recorded and transcribed
- Competition programs and similar documents (including jury reports)
- Juridical documents such as zoning plan and building applications containing drawings and original textual descriptions

Secondary sources relating to the case study projects:

- Project reviews from architecture media, written as the case projects were in the making, by the third party
- Project reviews from public media, written as the case projects were in the making (local newspapers), by the third party
- History books on the corporate sector (for example Francis Sejersted's book on the history of *DnC En Storbank i blandingsøkonomien*).

Summary and Reflections on the Method

This thesis applies case study method, as such a method presumes a systematic research design that makes it possible to use context-dependent knowledge in a discussion on a more general level.³⁶ I draw on the notion of a case study as an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when boundaries between phenomenon and context are not evident.³⁷

Subsequently, my research analyzes the development of large-scale architecture in a given period. I use three comparative cases that have a capacity to uncover how the large-scale functions in terms of underlying ideas, ideal and imaginaries, as well as their subsequent translation into physical structures. In addition, these cases are complementary in illustrating how the relationship between architecture and contemporary city is transformed in the given period. As such, I apply case study method to address the condition of the large-scale as a unique architectural and urbanistic phenomenon as explicated through real-life examples.

Drawing on Flyvbjerg's input on the notion of phronetic research, my intention is to provide a new type of insight-oriented knowledge, being a product of a case's capability to yield practical and context-base knowledge.³⁸ By accentuating the particularity of the studied context and its architectural sediments, I approach concrete events, processes, as well as situations appearing within the making of large-scale architecture. I project my 'practicing architect' background (knowledge and experience) into the framework of academic research, as the aim is to uncover, describe and problematize the dialectical process of translation of ideas, ideals and imaginaries into the built physical structure as seen from the perspective of a practicing architect. As such, this research does not revolve around explaining *why* certain processes necessarily happen, but *how* they actually happen.

³⁶ Elin Børrud, "Bitvis Utvikling – møtet mellom privat eiendomsutvikling og offentlig byplanlegging" (PhD diss., Arkitektur- og designhøgskolen i Oslo, 2005), 40.

³⁷ Robert K. Yin, *Case Study Research – Design and Methods*, Applied Social Research Methods Series Volume 5 (London: SAGE Publications, 1994), 13.

³⁸ Bent Flyvbjerg, *Ratioanlitet og Magt. Det konkrete videnskap*. Bind 1 (Ålborg: Institutt for Samfundsudvikling og Planlægning, Ålborg Universitetscenter, 1991).

The reason I apply the case study method is due to its openness to combine with other types of research methods. Here, I also include historical study as an additional overlapping method, because when studying production of architecture as a contemporary phenomenon, one should accept that the matter, which is studied, already has a historical dimension.³⁹ In the course of this thesis, historical approach is applied through an analysis of historical events and tendencies happening in society on a local, national and international level, as well as in terms of historical context within the architecture culture of the time. Such a wide field of historical (architectural and societal) knowledge gives an extensive overview of totality and is necessary since cases themselves are bound to their historical context. Undoubtedly, this also opens up the possibility of numerous perspectives.

The following summary charts the methodology of this research:⁴⁰

1. **Research question(s) – how = to what degree:**

Which underlying imaginaries informed conceptualization of the large-scale and to what degree are these imaginaries reflected the renewed interest for the (existing) city, a tendency developing at the time?

To what degree a specific type of architectural and urbanistic sensibility emerges due to the new (large-scale) building assignments in the period the late 1960s to early 1980s?

To what degree the continuous dialectic of translation, as explicated through a series of large-scale interventions, has implied something new – another type of ideals and formal models operative enough to encounter the contemporary city and its inherent architecture?

2. **Propositions – assumption, hypothesis, theory:**

Architecture as a physical environment and architecture as a profession/discipline;

Relationship between architecture and building assignments;

Notion of imaginaries in translation;

Notion of analogies and sensibilities.

³⁹ Rolf Johansson, "Ett bra fall är ett steg framåt. Om fallstudier, historiska studier och historiska fallstudier," *Nordisk arkitekturforskning* 13, nr. 1–2 (2000): 70.

⁴⁰ These follow Yin's five components of research design. Robert K. Yin, *Case Study Research – Design and Methods*, Applied Social Research Methods Series Volume 5 (London: SAGE Publications, 1994), 20.

3. **Units of analysis – analysis objects and criteria behind:**
University of Trondheim;
Vaterland;
Aker Brygge;
Criteria: temporality and character;
Subcriteria: context, program, client, pretext.

4. **The logic linking the data to the proposition – intertwining empiric material with propositions:**
Knowledge base;
Working Method;
Formal Ideal.

5. **The criteria for interpreting the findings – generalizing findings:**
The project and larger urban context;
The project and the immediate context;
The mode of organization;
The infrastructural principles;
Struktur/Structure;
Developmental possibilities.

These points are not treated chronologically within the course of the thesis; rather they intertwine and overlap, as it is their interrelationships that chart this research. The last two points are partially connected and subsequently they provide a basis for analytical generalization and theory.

2. Ideas, Ideals and Imaginaries

The period that the research explores is a relatively turbulent era during which the Norwegian society profoundly evolved.⁴¹ It is an era of continuous transformation, where the context of the 1980s gradually replaces the context of the 1960s; with the 1970s as an ideological battlefield within which the old values would continually encounter, and subsequently clash with the emerging socio-political and economic realities. The chosen period reflects a context with changing societal processes inherent both to the international (the European and the Nordic) and to the local Norwegian trends, where these processes have fostered specific types of building conditions and assignments on one side, and influenced architectural and urbanistic sensibilities on the other. The following chapter will examine architecture culture of the period, shedding light on ideals, ideas and imaginaries. This examination will focus on emerging and overlapping discourses and to what degree these had yielded a new terminology relating to architecture and the city.

Byggekunst 1966–83

The period's contemporary architectural discourse in Norway may be said to revolve around the establishment of a new operational model for architecture production on one side, and a critique of modernist practices on the other. One of the first signals showing this new condition took place in *Byggekunst* 2/1966 treating the theme of "Dense or Scattered" [Tett eller spredt]. It was a recap of the 1965 annual conference by the Norwegian Association of Architects, being also the very first introduction of structuralist ideas to the broader Norwegian architecture public. Predictably enough, by the end of the 1970s, this condition would be even more apparent, where the subsequent fragmentation of architecture discourse would perform as an underlying strategy for the magazine's new editorial board.⁴² Within such a context, architectural production and its discourse were treated through magazine issues

⁴¹ A more thorough examination of these changes is part of the later chapters where socio-cultural and political context is discussed in relation to the specific cases.

⁴² Tore Brantenberg, Peter Butenschön and Sven Erik Svendsen took over in 1979, after a fifteen-year reign by Christian Norberg-Schulz as editor. In 1982, Ketil Kiran would step in for Peter Butenschön, but the editorial group would be replaced by Ulf Grønvold in 1983.

with specific, usually non-relatable themes, for example urban revitalization (1/1979), children (4/1979), large buildings (5/1979), small buildings and building tradition (6/1979), art and architecture (2/1980), alternative technology (2/1981) and vocational architecture (5/1981).

During the early 1980s, the focus would slowly attach itself to the topic of emerging urban practice visible in several magazine issues.⁴³ Out of numerous presentations and articles, one should mention the extensive review of Ralph Erskin's Byker⁴⁴ renewal project in Newcastle by Jan Gehl, Lars Gemzøe and Steen Holmgren in *Byggekunst* 5/1980. (16) The article, under the title "Byker – a Softer City" [Byker – en blødere by?] comprehensively illustrated complexities, and new approaches within the project of urban renewal. Participation, pedestrianization, spatial variation offering different degrees of privacy, as well as an extensive integration of vegetation into the outdoor areas, were some of the intertwining intentions influencing the design,⁴⁵ clearly echoing Gehl's influential 1971 book, *Life Between Buildings*. As an additional snapshot, one should also mention Gordon Cullen's reportage with the title "Oslo" published in *Byggekunst* 7/1981. (17) In his recognizable approach coined through the 1961 book *Townscape*, Cullen portrayed specific places that presumably constituted the city's identity, from the Royal Palace, Akershus Castle, University, Cathedral and Karl Johan axis.⁴⁶ Oslo would become synonymous with its inner area, the 19th century city, the one appearing in the paintings of Munch. If Gehl's article discussed the framework of contemporary practice, undoubtedly Cullen's hand-drawn reportage suggested the very place of architectural and urbanistic intervention – the inner existing city – where the new contemporary practice was to project its stratagems.

The positions within the Norwegian architecture culture would be potentially clarified by 1983. The shift would be made explicit in magazine issues "Structuralism" [Strukturalisme] *Byggekunst* 2/1983 and "Back to the City" [Tilbake til byen] *Byggekunst* 7/1983. The former could be seen as an *epitaph* to the structuralist architecture in Norway, as the main projects following its ideological framework, such as the project for the Norwegian Bank by Lund & Slaatto, were completed. The latter was an affirmation of a new disciplinary and professional interest towards the city itself. This magazine issue condenses how the focus towards the city unfolded itself locally, as it came out just after two of the main competitions were held and decided, "Byen og fjorden – Oslo år 2000" and "Vaterland/Grønland".

43 The series of *Byggekunst* issues treating the emerging city was rather long: "The City Landscape" (3/1981) (14), "The Good City" (7/1981) (15), "Oslo" (8/1981), "Housing of the 1980s" (8/1982), among others.

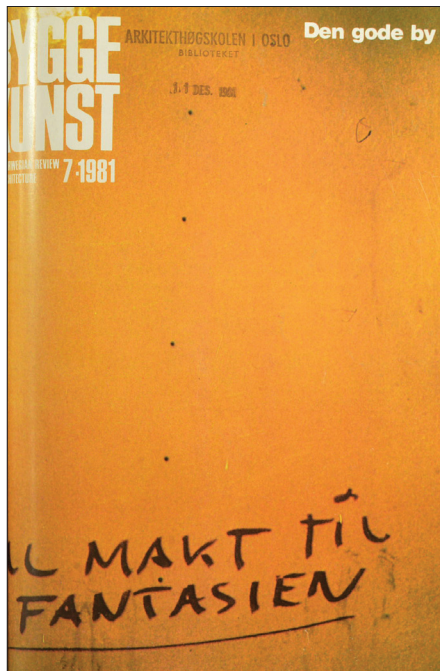
44 This project was unfolding from 1968 to 1981. It was featured in 1976 TEAM X meeting at Spoleto. That year's gathering organized by De Carlo, was under the title "Participation and the meaning of the Past".

45 Jan Gehl, Lars Gemzøe and Steen Holmgren, "Byker – en blødere by?," *Byggekunst* 5 (1980): 226–230.

46 Gordon Cullen, "Oslo," *Byggekunst* 7 (1981): 333–340.



14: Byggekunst 3/1981 (Facsimile: Cover).



15: Byggekunst 7/1981 (Facsimile: Cover).

This chronological overview has shown some general tendencies unfolding during the studied period, while in the following examination, I focus on their specificities. Through an analysis of the available empiric material from *Byggekunst* and other key publications from the period, I aim to examine the interplay between potential *imports* and dissemination of international discussions on one side; and emergence of similar sensibilities and responses to equivalent challenges happening within the local context on the other.

Byggekunst 7/1983

Byggekunst 7/1983 opened with two book reviews, one on Aldo Rossi's *A Scientific Autobiography* (1981) and *The Architecture of the City* (1982), written by a former Rossi student, architect Dag Tvilde,⁴⁷ and the second on Harald Baldersheim's book *Bypolitikk*, written by Peter Butenschøn.

Tvilde's review was one of the first presentations of Rossi to the general Norwegian architecture public, and was more of an essay on his key concepts and ideas.⁴⁸ In a similar manner, Butenschøn's text was also something other than a book review. Rather, it was a petition that celebrated the emerging urban renaissance, which in Butenschøn's view, also needed a redefined procedural framework to be further enhanced. As such, Baldersheim's book had offered empiric insights about the "interaction between politicians, administration and inhabitants, between centralized and de-centralized approach, and between wholeness and special interests"⁴⁹, signaling the new neo-liberal reality. Butenschøn's text is interesting because it directly portrays the changing attitudes towards the transformation of the city as "decision making belonged to political domain, and not to research".⁵⁰ The two book reviews could be seen as complementary, where the first one discussed changing disciplinary discourse, while the second focused on the changing framework conditions for the profession.

The magazine's main article was "Forming our Cities"⁵¹ [Byforming] by

47 Some years later, Tvilde would be a part of the architecture group G.R.A.S. that was behind the proposal "The Analogous City", a Rossi pastiche. Interestingly, Butenschøn would mention this project in his book *Det Nye Oslo* from 1987, characterizing it as "an example of abstract and intellectual rationalism, presented with graphic elegance, but without visible care for people who would use buildings and streets" (p. 24). This critique may be read as a consequence of the prevailing attitudes to architecture and city, where these were to be discussed exclusively in realistic terms, from the street-view perspective. Gehl's *Life Between Buildings* was being absorbed as an ideology.

48 In 1991, Dag Tvilde and Karl Otto Ellefsen would publish *Realistisk byanalyse*, a publication of a studio research done at NTH, inspired by Rossi's theory.

49 Peter Butenschøn, "Bøker: Bypolitikk i Norge," *Byggekunst* 7 (1983): 342.

50 *Ibid.*, 342. Here one may hear echoes of emerging negotiation planning, as well as that politics was about to replace the previous technocratic regime intrinsic to modernist planning paradigm.

51 The English translation is original, taken from the article's English version that was published on the last pages of the magazine (pp. 399–400). One should note that, the Norwegian term *byforming* was not translated into the term *urban design*, even though the content of the article was very much describable through this particular term. My assumption is that at the time, the term *urban design* was not substantially comprehended, nor absorbed, within the Norwegian architecture context.

Knut Selberg and Arne Sødal.⁵² (18) It was a product of the research project at NTH, under the title, “Forming our Cities: Three dimensional planning of urban renewal” [Byforming: 3. dimensjonal planlegging av byfornyelsen]. The intention was to create an overview of current theories, working analyses and methods applicable for building interventions with the city itself. Its outcome was to be a manual for architecture, inspired by *Design Guide for Residential Areas*,⁵³ made by County Council of Essex in 1974.

The article was very much reflecting the zeitgeist as it argued about necessity for an altered approach, movement away from the modernist planning strategies. One of the first issues it analyzed was the notion of dissolved space within the modernist city. This discussion was brought in through an attack on the modernist prime type, lamella. Here Selberg/Sødal used Lionel March and Leslie Martin’s 1973 book *Urban Space and Structures*, which argued that Gropius’ conclusion about lamella’s areal effectiveness vis-à-vis city block [Karree] was based on false scientific assumptions. In their argument, following up on March/Martin’s analysis, a five-story Karree was declared as the most areal effective type, and as such was attractive within the framework of urban intervention.

Besides such generalizations, the article presented several essential books: Gordon Cullen’s *Townscape* (1961), Kevin Lynch’s *The Image of the City* (1960), Jane Jacobs’ book *Life and Death of Great American Cities* (1961), Jan Gehl’s *Livet mellom Husene* (1971), Christopher Alexander’s *Pattern Language: Towns, Buildings, Construction* (1977), Robert Krier’s *Urban Space* (1975/79), and finally Charles Jenckes’ *Language of Post-Modern Architecture* (1977). Despite their broad knowledge of the architecture culture’s contemporary context, Selberg/Sødal forwarded only Ricardo Bofill as a representative of practice that managed to design projects that “slide directly into the urban context in a meaningful way”.⁵⁴ Based on the theoretical landscape that these books had offered, the article suggested several analyses to be used when working within the urban context: the analysis of the image of the city (Lynch); city silhouette (Cullen); structure of urban space (Krier); etc.

It should be noted that a further affirmation of such an approach happened a year later, in 1984, with Erik Lorange’s⁵⁵ *Byen i landskapet – Rommene i*

52 This article was the only significant exposure by Knut Selberg and Arne Sødal to general Norwegian architecture public. Otherwise, they remained relatively anonymous figures. Both are still practicing architects, belonging to the mainstream architecture production.

53 Knut Selberg studied architecture in Britain, graduating in 1975. One may argue that this reference came through him.

54 Knut Selberg and Arne Sødal, “Byforming,” *Byggekunst* 7 (1983): 349.

55 As opposed to the relatively young contributors to *Byggekunst* 7/1983 who were in their 30s, Erik Lorange belonged to a much older generation. Born in 1919, he was an architect educated at NTH in Trondheim in 1942. After the WWII, Lorange worked at Brete Steders Regulering, as a planner in Alta. After twenty years in different planning positions, Lorange would become a professor in planning at the Oslo School of Architecture (1971–86). For more information, refer to Ketil Kiran, “Erik Lorange,” *Store norske leksikon* https://snl.no/Erik_Lorange.

byen [The City in the Landscape, the Spaces in the City]. (19) This book, following the ideological lineage to Camillo Sitte's *Der Städtebau nach seinen künstlerischen Grundsätzen* from 1889, while also drawing on the above-mentioned references (Cullen,⁵⁶ Lynch and Krier), was one of the first comprehensive publications in Norway that suggested a straightforward method for analyzing the form of the (existing) city. In addition, it projected an expanded focus as it also discussed the necessity to relate to spatial and perceptive qualities of surrounding landscape.⁵⁷ As such, it was aiming at two different scales: one larger relating to the overarching form of the city as influenced by the landscape and its inherent features, and one smaller scale treating specific spatial situations within the urban tissue of the city.

What was apparent both in the article by Selberg/Sødal and Lorange's book was that the suggested analyses emphasized the visual, so-called 'three-dimensional' character of the city, while underlying forces of urbanization were neglected within architectural and urbanistic discussions. As Lorange wrote in the introduction, "this book is about how a city should be planned, but the aspects of functionality, infrastructure and economy are not treated here. Rather, I discuss how the city looks like. I analyze how we experience the city when we move through it."⁵⁸ Lorange's book may not exclusively be seen as an engagement of new values and approaches emerging in the architecture culture of the time. Rather, one may argue that it was also a return back to the ideals that he was influenced by in his early formative years as a student at NTH under Professor Sverre Pedersen.

Another article that was highly indicative of the changing times was Peter Butenschøn's "Two Processes in City Development – a Sketch" [To prosesser i byutvikling – en skisse]. (20) It was a pragmatic and generalizing text, easily understandable for architects, planners and politicians.⁵⁹ In the article, Butenschøn discussed two processes affecting the format of urban intervention: the normative and the exceeding. The normative processes followed well-established and predictable procedural systems, and by their nature could be characterized as being conservative.⁶⁰ These were based on precedents and judgments anchored within existing regulations, which again were a product

56 Visualizations in this book strongly remind of Gordon Cullen's images. In the chapter where Oslo was analyzed, Lorange mentioned also Gordon Cullen's aforementioned reportage on Oslo published in *Byggekunst* 7 (1981).

57 Here, one may hear echoes of Christian Norberg-Schulz's "Orden og variasjon i omgivelsene," *Byggekunst* 2 (1966). In the same article, CNS commended Lorange for his characterization of a traditional street as "a little universe", contrasting the loss of place in the context of urban dispersal and traffic separation. (p. 49)

58 Erik Lorange, *Byen i landskapet – Rommene i byen* (Oslo: Universitetsforlaget, 1984), 7.

59 This could be explained through Butenschøn's ability to navigate within different contexts and institutions, something that was capped by the establishment of IN'BY in 1983, an advisory agency focusing on planning, landscape architecture and project management, at the time co-owned also by Oslo Municipality.

60 Peter Butenschøn, "To prosesser i byutvikling – en skisse," *Byggekunst* 7 (1983): 384.

of long-term experience. They unfolded smoothly as long as projects and plans followed the predefined procedural logic. The exceeding processes were based on big leaps, those that were too large and rapid being unable to be absorbed by the established procedural systems. By being dependent on ruptures and disregard of existing historical sediments, such processes resulted in fundamentally new qualities, as well as they heralded new ideological regimes. Further on in the article, Butenschøn questioned to what degree the exceeding processes would still be possible as they depended either on undemocratic exercise of power or extraordinary situations such as international exhibitions, Olympic games, city fires, wars, etc.

Within such conditions, one also found biggest failures, hopeless utopias, and megalomaniac absurdities, as exemplified with Corbusier's Paris plans, Speer's plan in Berlin, DnC's at Vaterland among others.⁶¹ According to Butenschøn, the normative and exceeding processes were dependent on each other through a dialectical relationship where the normative one would become irrelevant unless it were challenged by potential ruptures, while the exceeding process would be impossible unless it legitimized itself through a normative language. Finally, Butenschøn did not conclude explicitly with preference of one over the other, rather he argued that having both processes intertwining reflected that there was a degree of a positive dynamic, which would be able to articulate new norms and values within the planning practices.

The article itself did not have an empirical backing and it functioned more as a comment, but being a complementary to Butenschøn's introductory book review, it still managed to convey an emerging sentiment where the format and character of urban intervention were at stake. One could read that innovation was to happen gradually and that a new city was to emerge within the framework of the existing one. It was anything other than what was suggested some twenty years earlier with a series of urban renewal projects for Karl Johan Quarters, Grünerløkka and Vålerenga, which had assumed total eradication of the existing building mass. In 1987, this new reality would be illustrated through the book *Det Nye Oslo* which Butenschøn co-authored with Tone Lindheim – a collection of re-rendered project presentations showing the development of Oslo as the neo-liberal wave unleashed in the 1980s.

This issue of *Byggekunst* magazine showed that an operative approach towards the city was in the making, both in terms of potential analyses and applicable methods. In addition, the magazine's topic gathered a critical mass of different partakers. The contributors were practicing architects, landscape architects, academia and historians. International references were introduced, together with local building/planning assignments and discussions. Besides

⁶¹ Ibid., 385.

the ones mentioned in the articles, for example those in Selberg/Sødal's text and Østenhgen's on newly decided Parc la Villette competition, there was also a review of Barcelona's current development written by David Mackay, a collaborator of professor and architect Oriol Bohigas, the main figure in the city's transformative processes. The article "Towards an Architecture of Urban Planning" presented how Barcelona started reinventing itself in the aftermath of Franco's death, where "the real causes of the urban chaos were identified by trying to understand the reality of the city, not in 'terms of an overall theory, but as a juxtaposition of various pieces'.⁶² It is clear that this approach was given through an understating of the city as a collection of fragments and site-specific situations.

This was directly relatable to the general tendency unfolding within the international architecture culture of the period. For example, it was explicated through the notions of archipelago (Ungers) or collage (Rowe), offering two different approaches yet to the same problem of modernist all-enhancing totality. As such, this issue of *Byggekunst* is important as it traced the emerging urban project in Norway simultaneously as it offered a conundrum of international references and discourses.

Low-Rise Intermezzo

The previous examination has shown that *Byggekunst* performed well as a space where the affirmation and dissemination of new ideals and values happened. Yet it was complemented by several other events and publications relating to the changing conditions within the architecture and urban practice in Norway.

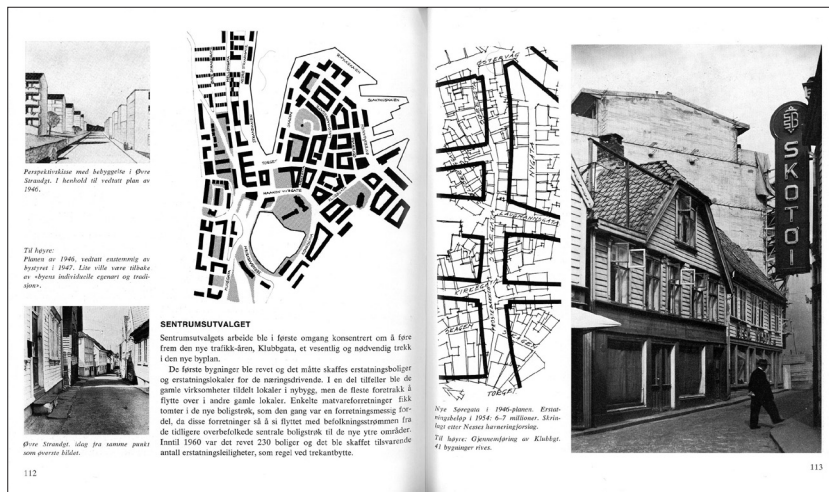
One of the important moments influencing the architecture culture in Norway was the adoption of the European Charter of the Architectural Heritage and the proclamation of 1975 as the 'Year of Architectural Heritage and Preservation'.⁶³ This measure would spark a Pan-European program where different countries initiated pilot projects illustrating how new ideas and new preservation theories functioned.⁶⁴ Gullik Kollandsrud,⁶⁵ Ola H. Øverås and

⁶² David Mackay, "Barcelona: Towards an Architecture of Town Planning," *Byggekunst* 7 (1983): 375.

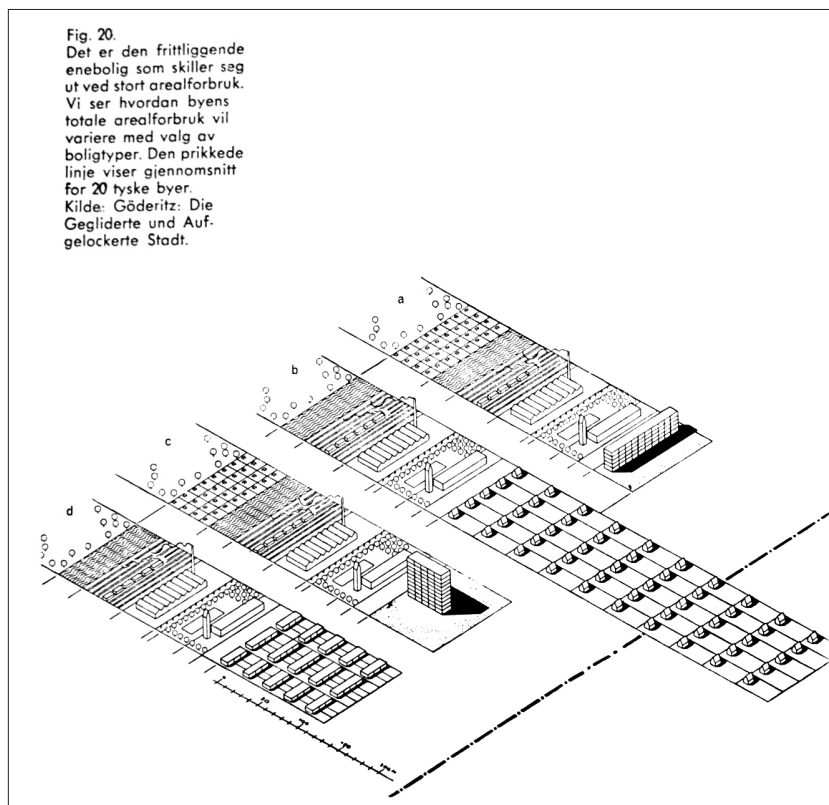
⁶³ The chairman of the Norwegian national committee, responsible for organization of 'Year of Architectural Heritage and Preservation' was Gro Harlem Brundtland. Her article "Arkitektur- og miljøvern i fremtidsperspektiv" illustrates clearly the changing attitudes towards the environment, as well as portraying how these changes were absorbed within the legal framework of the country. Gro Harlem Brundtland, "Arkitektur- og miljøvern i fremtidsperspektiv," edited by Stephan Tschudi Madsten and Lisen Bull, *Arkitekturvervåret 1975 – innhug og rapport* (Oslo: Dreyer, 1976), 36–42.

⁶⁴ Fifty projects were chosen across Europe from Edinburgh's 18th century quarters, Berlin's 19th century blocks, Amsterdam's channels and merchant houses, to Helsingør's old city. Stephan Tschudi-Madsen, "Introduksjon," introduction to Gullik Kollandsrud, Ola H. Øverås and Einar Hedén, *Framtid for fortid* (Oslo: Dreyer, 1977), 3.

⁶⁵ Gullik Kollandsrud was a professor at AHO in the period 1967–78. In 1961, five years after graduation, Gullik and his wife Mari were invited to submit a proposal for renewal of Oslo's district of Grünerløkka in a competition organized by Oslo Bys Vel. They, similarly as three other teams, submitted a proposal that assumed total demolition of the area and construction of a new modernist neighborhood consisting of several 15-story blocks, being strongly inspired with American ideals.



21: *Framtid for fortid*, Gullik Kollandsrud, Ola H. Øverås and Einar Hedén (Facsimile: Pages 112–113).



22: Göderitz/Reiner/Hoffmann's diagram from their *Die gegliederte und aufgelockerte Stadt*. Re-used in *Trehusbyen – kan den gjenskes?*, Gullik Kollandsrud (Facsimile: Page 56).

Einar Hedén published a book *Future for Past* [Framtid for fortid] in 1977, examining historical development and architecture of three selected cases – Nusfjord, Røros and old town Stavanger. (21) Some of its findings would be taken further to initiate a more systematic discussion on possible models for future urban development. Gullik Kollandsrud would use existing small-scale environments of southern Norwegian coastal towns (Gøransberg in Kragerø, Hollenderbyen in Flekkefjord, Kvadraturen in Kristiansand and several examples from old-town Stavanger) to suggest a low-rise high-density model as a counter proposal to the large-scale modernist visions found in Norwegian satellite towns [drabantbyer]. This would be comprised in his 1978 book *Wooden Town – can it be recreated?* [Trehusbyen – kan den gjenskapes?]. (22) Interestingly enough, a considerable part of the book went on to disclaim modernist residential areas such as Ammerud and Haugenstua.

Kollandsrud used several studies to demonstrate how badly these areas functioned and how unhappy their residents were when compared to those living in other urban areas.⁶⁶ The underlying argument was inspired by the *Ammerud Reports*,⁶⁷ a political (leftist) critique directed against the ideals and the forms of practice that governed post-war reconstruction in Europe.⁶⁸ These built realities were seen as insufficient as they were exclusively made to offer as many housing units as possible on the smallest available area while soft values and psychological needs of inhabitants were forgotten.⁶⁹ An old wooden town was approached as an operative model capable of encountering this critique: due to its small scale, it could easily be associated with community and social life; it was informal in facing potential modifications being an open form, as well as it integrated other functions than housing.

Yet Kollandsrud went a step further in idealization of this urban imaginary. He was highly scientific in his analysis relating to issues of density, resources and cost. Here, he used the argument by Göderitz/Reiner/Hoffmann's 1957 book *The Zoned and Dispersed City* [Die gegliederte und aufgelockerte Stadt] based on the study of twenty German towns showing how the city's total area use varied depending on the choice of housing type. Low-rise dense schemes

66 The list was long: *Sinnets helse* nr. 5/1975 (*Stovnerreporten*); Torodd Karlsen "Fritid og kultur i drabantbyer" (master thesis in sociology), Oslo, 1976; Eilertsen Svein "Integrasjonsprosesser i drabantbyer" (master thesis in sociology), Oslo, 1977; *Levekårsundersøkelsen 76*. NOU 1976. Odd Steffen Dalgard's analysis "Nærmiljø og psykisk helse" published in *Det fysiske miljø og mennesket* (Trondheim: NTH, 1976) focused at symptoms of nervousness in different environments of Oslo. It had four categories in its questionnaire: on the verge of nervous breakdown; being sad; being nervous; and have been at the psychiatrist last five years. It showed that people living in new satellite towns [drabantbyer] came out worst in all categories, while people living in single-family homes were in the best psychological condition. It was three times more probable to get nervous breakdown if living in satellite towns than in single-family house, or 1.5 times more if living in the old central areas of the city. For more insight into this analysis, refer to Gullik Kollandsrud, *Trehusbyen – kan den gjenskapes?* (Oslo: Treopplysningsrådet, 1978), 17.

67 Thorbjørn Hansen and Anne Sæterdal, *Ammerud 1. Planlegging av en ny bydel* (Oslo: Norges Byggeforskningsinstitutt, 1969) and Grethe Bull, Thorbjørn Hansen, Ragnhild Haug, *Ammerud 2. Å bo i drabantby* (Oslo: Byggeforskningsinstitutt, 1970).

68 Karl Otto Ellefsen, "Homely Structures," *Nordic Journal of Architecture*, No.1 Volume 2 (2012): 47.

69 Gullik Kollandsrud, *Trehusbyen – kan den gjenskapes?* (Oslo: Treopplysningsrådet, 1978), 21.

needed more or less the same areal footprint as the ones based on high-rise-lamella type, while the most area-consuming were the schemes utilizing the type of a single-family house.⁷⁰ His conclusion was that the concept of low-rise high-density was economically more effective than that of high-rise block and other similar tenement schemes,⁷¹ a predictable conclusion, as Kollandsrud was an architect with professional experience obtained through equivalent projects in his portfolio.⁷²

By projecting the analogy of Norwegian old wooden towns, Kollandsrud would expand the narrative of the low-rise high-density as an architectural and urbanistic ideal, an already established reference within the Norwegian architecture culture from the mid-1960s.⁷³ History would be injected as an additional layer through which low-rise as an urban model would potentially be legitimized. During the 1970s, the notion of history became increasingly more important as a counterweight to modernist dogmas. One could argue that this resulted in two different approaches. On one side, in a static approach, as for example visible in Thomas Thiis-Evensen's 1975 book *Places in Oslo* [Steder i Oslo] where discussion was led through a historical imperative given by the focus at the city's 19th century precedents.⁷⁴

On the other side, there was a more dynamic approach where the study of historical and vernacular urban environments was not guided with the intention of copying them, but to search and distill hidden, code-bearing, underlying structures, strongly allying with the structuralist thought.⁷⁵ It is within this

70 Johannes Göderitz, Roland Reiner, Hubert Hoffmann, *Die gegliederte und aufgelockerte Stadt* (Tübingen: Ernst Wasmuth, 1957).

71 Gullik Kollandsrud, *Trehusbyen – kan den gjenskapes?* (Oslo: Treopplysningsrådet, 1978), 118.

72 Besides ARITIM and their 1962 atrium houses at Hamar, Gullik and his wife Mari were among the first in Norway to introduce low-rise dense living types as an alternative to the post-war lamella-driven developments. This approach had a clear reference to Utzon's Kingo Houses from 1957–61. Similar ideas to Kollandsrud's were explored at Solvangen in Skedsmo, a residential project initiated and completed in the period 1962–68. Ketil Kiran, "Gullik Kollandsrud," in *Store norske leksikon*, https://snl.no/Gullik_Kollandsrud. It should be also noted that in 1965, Kollandsrud was one of the keynote speakers at the aforementioned "Dense or Scattered" annual congress organized by the Association of Norwegian Architects, and republished in 1966 issue of *Byggekunst*. In the lecture/article, "Arealanvendelsen i våre byer" [Area use in our cities], he focused on the issues of urban dispersal in a scenario where neighboring municipalities were becoming residential areas consisting of single-family houses, serving the city itself. He was critical of the unconstrained consumption of areas for the purpose of housing – as mentioned before, an approach he re-introduced in the late 1970s, but when critiquing the high-rise lamella-based developments. This emerging condition was seen as unbearable, as it maintained strict separation of functions supported by a high-capacity infrastructure, usually decided through overrated prognosis models for traffic management. A potential solution lay in the integration of functions, as well as in application of adequate densities. It was clear that the emerging housing ideal was that of low-rise high density as one of the reference projects accompanying his lecture/article was the axonometric view of the runner-up project in Skedsmo Town competition by Hultberg, Resen & Throne-Holst, Seablom from 1965. Undoubtedly, it was the structuralist ideas that were slowly entering the established architectural discourse also in Norway. (*Byggekunst* 2/1966): 36.

73 Sigmund Asmervik argues in his article "1983+1=1984," *Byggekunst* 7 (1983): 379–382, that urban plan competitions from the late 1960s dealt with a wish for a denser and more integrated urban structure than what was the case ten years earlier. He referred to the Nordic competition in Trondheim for a regional center at Heimdal with 7000 housing units. Here I may add also competitions for Skjetten Town (1965), and University of Trondheim (1969), among others.

74 This book was also published with the support of the National Committee for the 'Year of Architectural Heritage and Preservation' in 1975.

75 Karl Otto Ellefsen, "Homely Structures," *Nordic Journal of Architecture*, No.1 Volume 2 (2012): 48.

particular understanding that Kollandsrud's book resonated.

In addition, the analogy to Norwegian old wooden towns would also accentuate wood as a new-old construction material contrasting the modernist material monotony visible in the large-scale housing projects.⁷⁶ Wood would be re-affirmed as a construction material capable of performing within larger housing assignments, beyond single-family house.⁷⁷ Kollandsrud's book represented a comprehensive manifesto-like theory optimized to critique the old modernist models as well as to propose new operational modes for architecture and urbanistic intervention in a time of changing societal ideals.

Structuralism in Norway

Nils-Ole Lund in his 1991 book *Nordisk Arkitektur* regarded structuralism as a rather short-lived phenomenon whose influence was limited to a few particular projects, for example, aforementioned Jørn Utzøn's Kingo Houses.⁷⁸ Such an interpretation may be seen as a contrast to the 1983 magazine issue of *Byggekunst*,⁷⁹ which extensively reviewed structuralism's influence on Norwegian architecture. A more recent article, Karl Otto Ellefsen's "Homely Structures" from 2012 went even deeper in reviewing both the ideological foundations of structuralism, as well as discussing its architectural and urbanistic translations with an overview of low-rise high-density housing production in Norway. As mentioned before, the first introduction of structuralist realm of ideas to the broader Norwegian architecture public was through *Byggekunst* 2/1966, the issue also famous for its daring cover with grazing sheep.⁸⁰

The most ambitious contribution in *Byggekunst* 2/1966 was Christian Norberg-Schulz's lecture/article "Orden og variasjon i omgivelsene" [Order and variation in the environment]. Like Kollandsrud, he also dealt with the issue of dispersal and density, but his approach was much wider and all-embracing, as Schulz intertwined ideas coming from the field of psychology of perception with those relating to architectural and urbanistic realm. By departing from

76 Kollandsrud's book was published by Treopplysningsrådet, nowadays Trefokus, a national information company co-owned by two associations the Norwegian Sawmilling Industry [Treindustriens Landsforening] and the Norwegian Forest Owners' Association [Norges Skogeierforbund].

77 The same year when Kollandsrud's book came out, in 1978, Treprisen [The Wood Prize] was given to Telje-Torp-Aasen, Architects. Several of their projects such as Staff-housing at Beitostolen in Valdres and Cluster Housing at Svendstuen in Oslo, could be characterized as representatives of low-rise high-density projects. In addition, that same year the seminal book *Treprisen* was published. It showed projects by all laureates since the prize's establishment in 1961. Norwegian Association of Architects was the publisher, but the work with the book was assisted by Treopplysningsrådet.

78 Nils-Ole Lund, *Nordisk Arkitektur* (København: Arkitektens Forlag, 1991).

79 The following articles and project presentations were published in this issue: "Strukturalisme" editorial by Ulf Grønvd; "Norsk Strukturalisme" by Ulf Grønvd; "Ein? Epoke? Over?" by Svein Hatløy; "Kontur? Struktur?" by Ulf Lyngar; "Strukturalistisk arkitektur – fanget eller fri?" by Kjell Lund; "Lund og Slaatto revy"; "Norges Bank" (Prosjekt) by Kjell Lund og Nils Slaatto; "Fra fleksible til generelle boliger" by Erik Hultberg og Ola Mowé; "Strukturalismens labyrint" by Nina Witoszek.

80 A more informal import happened through NTH milieu and Arne Korsmo, who was a key transmitter of CIAM and Team X ideas. Karl Otto Ellefsen, "Homely Structures," *Nordic Journal of Architecture*, No. 1 Volume 2 (2012): 47.

Sussane Langer's 1953 book, *Feeling and Form: A Theory of Art*, Schulz suggested that architect's assignment was "to offer an appropriate framework for the way of living, not just a practical, but one which helps the individual and the collective to achieve psychological rooting".⁸¹

This may be seen as an attempt to establish a new toolbox capable of encountering the radical transformation as initiated by overarching processes of post-war reconstruction and modernization, all of which had influenced both the built environment and the surrounding landscape. Schulz emphasized the necessity of order, not through a fixed (formal) model, but through a relational approach where order itself would make variation (over something) possible. He suggested three levels: "Firstly we should consider the relation between landscape and buildings, secondly we are interested in the inner organization of the settlement, and finally we ought to give single elements, the buildings, a satisfactory form."⁸² As such, order was seen as an underlying structure, a framework facilitating the possibility of variation and openness as much in perception as in the making of an object. It was about creating a grammar that allowed things to be added or taken away, where the essence is determined, but not the result.⁸³ This was complementary to Piaget's definition of structuralism as it related to "the idea of wholeness", the idea of transformation" and "the idea of self-regulation".⁸⁴

By the mid-1960s, these concepts would be already absorbed by the international architecture culture, primarily within *Team X Primer*.⁸⁵ Ellefsen systematically condenses its essence: (1) It focused on the city as a totality emphasizing the structure rather than the buildings where the "philosophy of the doorstep" erased the distinction between inside and outside. (2) It aimed at societal structures capable of being translated into physical structures and as such it enhanced an architecture founded on basic human needs. (3) It focused on suggesting a new understanding and legitimization of architectural form. (4) It encountered the issue of transformation, change and changeability. (5) It suggested a reassessment of the architect's role where architect would perform in the interplay of being a 'master builder' with ability and knowledge to influence underlying structures, and someone who resonated between building his/her thinking and allowing future users to take part in the decision making.⁸⁶

In the second half of the 1960s, these ideas would gradually be absorbed by the Norwegian architecture culture in terms of both practice and architectural critique. The type of projects where the structuralist approach made itself

81 Christian Norberg-Schulz, "Orden og variasjon i omgivelsene," *Byggekunst* 2 (1966): 45.

82 Ibid., 45.

83 Karl Otto Ellefsen, "Homely Structures," *Nordic Journal of Architecture*, No.1 Volume 2 (2012): 48.

84 Jean Piaget, *Structuralism* (Paris, New York: Basic Books, 1970).

85 The primer was first published in journal form in *Architecture Design* (December 1962). It would be republished in book form in 1968.

86 Karl Otto Ellefsen, "Homely Structures," *Nordic Journal of Architecture*, No.1 Volume 2 (2012): 44.

highly applicable was in larger building assignments such as mass housing and state university infrastructure, as visible in the Skjetten Town project by Nils-Ole Lund with Resen, Throne-Holst and Hultberg. Moreover, the architectural critique explicitly reflected itself as an opposition against both modernist ideals and against bureaucracy and irrational planning procedures, where the most typical and important example was the aforementioned *Ammerud Report*.⁸⁷ (23) During the 1970s, architecture practice and critique would intertwine and eventually merge in the affirmation of a new ideal: the emergence of the low-rise high-density model, which subsequently would also start enhancing other narratives, such as those of soft values and history.

By the end of the 1970s, structuralism would gradually lose its momentum as other societal and cultural influences started affecting architecture culture, for example the emerging historical postmodernism. The way it was approached in *Byggekunst* 2/1983, showed that it was becoming more of an ideology, treating architectural form and its iconographic expression and not a broader term with architectural, urbanistic and societal connotations.⁸⁸

This was visible both in Kjell Lund's article "Strukturalistisk arkitektur – fanget eller fri?" [Structuralist Architecture – Chained or Free?], and in the project presentation of Lund & Slaatto's headquarters for the Norwegian National Bank where fixation toward system-iconography resulted in a project that allowed anything other than Piage's idea of transformation and self-regulation. (24) As such, structuralism, being simplified to a style, became potentially emptied of its deeper multilayered meaning as appearing for example in *Team X Primer*. This was readable in Ulf Grønvold's article where after raising a question "what do we do with the façade?" he claimed that "with the direction architectural debate took at the end of 1970s, it was obvious that this just would not make it anymore. Both preservationists' demands for "fit" and post modernists' accentuation of architecture's visual function have led to the present situation in which it is more difficult to defend a general approach to architecture."⁸⁹

One of the articles that managed to illustrate the changing condition within the architecture culture of the period was Erik Hultberg⁹⁰ and Ola Mowé's⁹¹ "Fra fleksible til generelle boliger" [From flexible to open-ended housing].⁹²

87 Ibid., 47.

88 Svein Hatloy's article "Ein? Epoke? Over?" was a worthy defense of the 'original' structuralism.

89 Ulf Grønvold, "Norsk strukturalisme," *Byggekunst* 2 (1983): 63.

90 Erik Hultberg was one of the architects behind Skjetten Town. After graduating from Edinburgh in 1957, he attended the University of Pennsylvania where he received Master of Architecture in 1959. He studied under Louis I. Kahn. Elisabeth Seip, *Norsk Kunstnerleksikon*, https://nkl.snl.no/Erik_Hultberg.

91 Ola Mowé was an architect, and in the 1990s he would become one of the partners of HRTB, after Erik Hultberg retired.

92 A shorter English translation of this article was also presented in the magazine, translation by Scott Campbell, with the title "Flexible Housing". Here I chose to use my translation, as it is more indicative of the transformation within the notion of flexibility.

On one side, they reviewed several of the key structuralist housing projects in Norway from the late 1960s,⁹³ while on the other, they examined the notion of adaptability [tilpasning] as approached through the ideas of flexibility and generality [generalitet]. Here, they directly related flexibility to the realm of structuralism, as flexibility was approached through a “function-analysis and building technology given by a set of suitable constructive elements within a system”.⁹⁴ On the contrary, generality was seen as a result of “analysis focusing on human actions being translated in adaptable spaces organized in accordance to certain ordering principles”.⁹⁵ The former was characterized by the presence of technology and was read as a tool to be used by a user with a clear reference to *Skjetten – A User’s Manual* [En håndbok for folket i Skjettenby], while the latter was ‘finalized’, but with an open and general character. Architecture’s fixed spatial qualities would offer the possibility of different use scenarios to its users due to the generality of space. Palladio’s Palazzo Thiene and Kahn’s Trenton Bathhouse, as well as several of Sverre Fehn’s villas, were referenced.

This argument was illustrated through two relatively similar projects DB18⁹⁶ and UPP⁹⁷, where one also may trace new tendencies in the interplay between the emerging urban interest and the diminishing structuralist realm. The organization of residential units in DB18 project followed a simple spatial order inspired by the generality of the pre-war housing, as referenced by the example of the bourgeoisie residential area of Jessenløkka in Oslo from 1922. Besides being a critique of the 1970s’ housing production’s focus towards the idea of a single-family, these projects also offered an imaginary that resonated on several other levels. Firstly, they were urban interventions defined by the constraints of the surrounding urban context – anything other than Skjetten Town built on the former agricultural land. Secondly, they consisted of several fragmented volumes – they were the opposite of Per Kartvedt’s heroic project at Steinan and Harald Høyem’s 500-meter-long continuous “Flexible Residential Structure” at Heimdal. Thirdly, their tour-de-force was given by a spatial imperative. This was apparent both in terms of the above-mentioned notion of generality as visible in the interior organization of the residential units and the volumetric disposition of varied outdoor spaces – both of which would offer different forms of collectivity and individuality.

Lastly, this project could be also seen in relation to the intertwining references from the international architecture culture and the local heritage. As

93 Here they talked about Skjetten Town from 1965, Steinan Student Town from 1966, Risvollan – Blakli Area from 1967 and “Competition for flexible housing structures” organized by Norges Familieråd from 1968. For more information, refer to Erik Hultberg and Ola Mowé “Fra fleksible til generelle boliger,” *Byggekunst* 2 (1983):74–77.

94 *Ibid.*, 74.

95 *Ibid.*, 74.

96 This project was honored in the idea competition “80-års bolig og boform” from 1981. It was authored by Ola Mowé, Erik Hultberg and Margrethe Dobloug.

97 This project was honored in the competition “Vaterland /Grønland” from 1982. It was authored by Hultberg, Resen, Throne-Holst & Boguslawski.



23: Skjetten Town, Nils-Ole Lund with Resen, Throne-Holst and Hultberg, 1967–73 (Photo: Taken from *Arkitekten* 10–11/1973).

Uttak
Dette er lagt inn et ruter på kanten med 10 cm avstand til en innvendig mur med 10 cm tykkelse. Dette er en standardisert løsning for å sikre en god isolasjon og for å unngå kondensasjon i kanten. Ruten er laget av et materiale som er godt egnet til dette formålet, og den er ferdig utarbeidet og kan monteres direkte på kanten.

Generelt
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Konstruksjon
Generelt og firkantet har vært utarbeidet for å sikre en god isolasjon og for å unngå kondensasjon i kanten. Ruten er laget av et materiale som er godt egnet til dette formålet, og den er ferdig utarbeidet og kan monteres direkte på kanten.

Vindretning
Vindretning er et viktig element i byggingen av et hus. Det er viktig å sikre at vindretningen er riktig, og at den er godt isolert. Dette er viktig for å sikre en god inneluft og for å unngå kondensasjon i kanten.

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24: From structuralism to structuralist iconography. "Norges Bank nytt hovedsete 1973–1987" by Lund & Slaatto, project presentation (Facsimile: *Byggekunst* 2/1983, pages 72–73).

Tore Brantenberg wrote in his article “Housing for the 80s – Utopia and Reality” [80-års bolig – utopi og realitet] while reviewing DB18 project: “Here, Krier brothers and Aldo Rossi should be credited for their re-actualization of the qualities in the urban space. DB18 shows that it is still possible to retrieve a lot from our own architecture and planning history, especially from the 1920s with a successful combination of both classical and spatial ideals as visible in Lindern, Torshov and Ullevål Hageby.”⁹⁸ Interestingly, these words referred to the project authored by Erik Hultberg, who was also responsible for Skjetten Town, one of the prime examples of structuralist architecture in Norway.

Just ten years after the completion of Skjetten Town a changed mode of attitudes and values was visible in architecture and urban practice. I would argue that these years represented a period of complementary and continuous disciplinary and professional developments. This is especially visible in the low-rise high-density model evolving from a proto-example of structuralist architecture (Skjetten), to becoming subjected to historical perspective of traditional wooden towns (Kollandsrud), and finally to be introduced as a model for urban transformation and densification within the city itself (DB18 and UPP).

Summarizing remarks

The review of the architecture culture from the mid-1960s to the early 1980s has shown that there were two particular ‘projects’: one relating to a systematic critique of modernism and the other relating to new operative approaches. I have chosen to present this argument in a retroactive manner, starting from the 1980s and going back to 1960s, (and ending up again in the 1980s) because it is more evident to show that there were no clear-cut shifts, but a series of gradual, yet interrelated changes.

Following Sejersted, change is not viewed as the conclusion of something old, but as the beginning of something new.⁹⁹ As such, architecture may be said to be in a dialectic process where its disciplinary and professional character condition each other in constantly developing tools to address emerging challenges, either those of the 1960s urban dispersal and renewal, the 1970s urban regeneration and the 1980s urban transformation. Finally, this review intentionally did not treat the issue of large-scale architecture despite that the ideas, ideals and imaginaries that I have touched upon that did appear both directly and indirectly in these types of projects. My underlying intention was to portray what was happening within architecture culture of the period. The following analysis of the three chosen cases will be a place where these

⁹⁸ Tore Brantenberg, “80-års bolig – utopi og realitet,” *Byggekunst* 7 (1981): 330.

⁹⁹ Francis Sejersted, *The Age of Social Democracy: Norway and Sweden in the Twentieth Century* (Oxford: Princeton University Press, 2011).

ideas, ideals and imaginaries will be discussed in relation to the large-scale architecture. As such, this review functions as a silver screen onto which the story of the large-scale architecture will be projected on.

This analysis of architecture culture of the period has touched upon terminology that may potentially be critical in understanding the dialectical process of translation of ideas into the large-scale architecture projects, as well as it may help in understanding the making of new sensibilities for architecture and urban practice. This terminology revolves around the notion of the city, how it is approached, understood, discussed and finally used as a legitimization medium for design process. In general, this may be summarized through two interdependent tendencies:

- ‘Citiness’ as an underlying ideal: During the studied period, the enhancement of *structure* would demand an expanded understanding and openness. As such, structure would encounter numerous intertwining complexities, as well as it would start absorbing different social narratives. The modernist simplicity, as condensed within the separation of functions and freestanding objects in the green, would become insufficient. The integrative approach would start urging for a programmatic complexity and higher density; its articulation would be inspired by urban imaginaries.
- The return to the city: Building assignments in the city and focus towards the urban environment would start demanding new approaches, different from the ones used during the modernist expansion project. This would also accentuate the notion of the existing urban context as articulated through the morphological/typological approach as well through the idea of urban collisions (new versus existing layer). The importance of space and spatial continuity would begin to be one of the driving forces within the articulation of the emerging urban condition.

3. The Large-Scale Signal: Dragvoll

On December 5, 1968, after several years of preparations both on the local and the national level,¹⁰⁰ a two-stage Nordic architecture competition for the new university in Trondheim was declared. The organizer, and the future client, SBED – the state agency for the construction and management of public buildings – issued a competition invitation: the competitors were to design a university complex with a capacity for 37,000 students and employees, fitted into 700,000 square meters on the 1,500,000 square-meter site on the former agricultural fields, just outside the city of Trondheim. The assignment also included a more detailed design of the first stage consisting of 40,000 square meters.¹⁰¹

This competition could be seen as a consequence of the overarching societal transformations in the first two decades following the WWII in Norway. The modernization processes had initiated numerous large-scale state interventions from mass housing projects on the outskirts of the cities to the implementation of the new infrastructure. The post-war baby boom generation was growing up and was to embark to institutions of higher education. The idea of higher education was being transformed from the education for the elite into the education for the masses.¹⁰² The conjunction of these factors, along with the demands by the rising national industrial complex,¹⁰³ caused an educational explosion: in 1950, there were 7,500 students in Norway, in 1960 there were 10,000 students and in 1970 the number was 30,000.¹⁰⁴ As a comparison in the

100 These processes were described in several municipal documents: “Sak B nr. 157/1968 Regulering av tomt for universitetet i Trondheim,” in *Trondheim bystyres forhandlinger år 1968, B, saker nr. 1–329/1968* (Trondheim: Adresseavisens boktrykkeri, 1969), 249; “Sak B nr. 65/1973 Reguleringsplan for universitetsområdet på Dragvoll – Stokkan,” in *Trondheim bystyres forhandlinger, år 1968, B, saker nr. 1–206/1973* (Trondheim: Adresseavisens boktrykkeri, 1973), 131.

101 The university plans that were put forth in front of the Norwegian national parliament in 1966–67 were consequently approved in March 1968. These were dealing exclusively about the first building stage. Still, the competition program and consequently the jury itself would embrace the scenario within which the university would be visualized as a total project.

102 Agnete Vabø and Per Olaf Aamodt, “Kvalitetsreformen og universitetene som masseutdanningsinstitusjon,” in *Skriftserie 2/2005* (Oslo: NIFU STEP Norsk institutt for studier av forskning og utdanning, 2005), 13.

103 Berge Furre, *Norsk Historie 1914–2000* (Oslo: Det Norske Samlaget, 2000), 200.

104 Agnete Vabø and Per Olaf Aamodt, “Kvalitetsreformen og universitetene som masseutdanningsinstitusjon,” in *Skriftserie 2/2005* (Oslo: NIFU STEP Norsk institutt for studier av forskning og utdanning, 2005), 17.



26: Top view model. Trondheim University at Dragvoll, Henning Larsen (Photo: HLTS).

same period, the student mass in the Great Britain was doubled from 100,000 to 220,000 students.¹⁰⁵ In 1968, the Norwegian Parliament had decided that Norway was to establish two new universities, one in Trondheim and one in Tromsø. A new educational infrastructure was about to emerge.

By the deadline on June 2, 1969, there were twenty-four proposals submitted. The competition jury consisting of nine members, four of whom were practicing architects, three Norwegians appointed by the Norwegian Association of Architects: Sverre Fehn, Birger Lambertz-Nilssen and Rolf Ramm Østgaard; and a Dane, the representative of the Nordic architecture association: Knud Holscher, had selected six proposals to enter the second stage: five Danish teams and one Swedish team.¹⁰⁶ None of the Norwegian teams came through.

On February 5, 1970, the jury had announced that the proposal “22183”, done by the Danish architect Henning Larsen, was the winner. (26) The jury had characterized it “as a functional city-like structure capable of absorbing the future’s unpredictable demands. The design of the first stage would easily be fitted within the whole structure without binding the future development.”¹⁰⁷ The winning proposal was a three-level-block structure based on a one hundred-by-hundred-meter city grid. The architect framed it as a product of “qualitative and quantitative site analysis that optimized the issues of sloping topography, marshy soil conditions and the fjord view”.¹⁰⁸ This analysis had yielded a three-dimensional zone – a spatial system whose capacity was based on how the university could be packed in, according to the environmental constraints of density, circulation and light conditions; and the performative constraints of interaction, flexibility and expansion.

One of the most compelling parts of this proposal was the implementation of streets. The architect’s statement was clear: “the in-between spaces – the streets – are articulated through a charged flow of information about seminars, parties, lectures, all kinds of activities - a market for communication in terms of large banners, posters, light shows, newspapers and slogans”.¹⁰⁹ The jury was exhilarated by such rhetoric – the street was to yield a rich and differentiated city milieu. A simulation of the traditional European city was paving the way for a new university type.

105 Tony Birks and Michael Holford, *Building the New University* (Newton Abbot: David & Charles, 1972), 9.

106 Birger Lambertz-Nilssen was an architect within the Knut Knutsen tradition of solid architectural artisanship with a strong regional/national approach. Rolf Ramm Østgaard was the architect behind several buildings for the University in Oslo at Blindern. The Danish architect Knud Holscher was an architect operating within the modern Danish building tradition. He was also the architect behind the proposal done by the architecture office Krohn Hartvig Rasmussen, the winner of the first prize in the competition for the new Odense University in 1966. Additionally there was one more architect, Dag Brønne, representing the client, SBED. Four other members were Harald Winter-Hjelm, Egil Orvei, Dag Omholt (SBED directors) and the dean Edvard Bull (history professor and the son of Edvard Bull the former foreign minister and a Labor Party politician).

107 Henning Larsen Tegnestue, *Universitetet i Trondheim – konkurranseprojektet 1969–1970* (Copenhagen: Henning Larsen Tegnestue, 1970), 2.

108 *Ibid.*, 15.

109 *Ibid.*, 15.

SOURCES

This chapter is based on the reading of Henning Larsen's competition proposal (stages 1 and 2) for the new university in Trondheim at Dragvoll. The sources are drawings and textual explanations as shown in the architect's own publication *Universitetet i Trondheim – konkurranseprosjektet 1969–1970* (Copenhagen: Henning Larsen Tegnestue, 1970). The sources showing political and administrative processes are communal documents “Sak B nr. 157/1968 Regulering av tomt for universitetet i Trondheim” in *Trondheim bystyres forhandlinger år 1968, B, saker nr. 1–329/1968* (Trondheim: Adresseavisens boktrykkeri, 1969) and “Sak B nr. 65/1973 Reguleringsplan for universitetsområdet på Dragvoll – Stokkan” in *Trondheim bystyres forhandlinger, år 1968, B, saker nr. 1–206/1973* (Trondheim: Adresseavisens boktrykkeri, 1973). Valuable empirical insights come also from the interviews I have conducted with key partakers in the architect's project team: Henning Larsen, Troels Troelsen, Knud Larsen, and Per Knudsen. In addition, I have interviewed Seth Seablom, the architect behind the alternative proposal for the new university, as well as Knut Eirik Dahl, one of the team members behind the proposal for the new architecture school in Trondheim unfolding just before the university project.

SOCIETY

Trondheim: new mobility, new borders, new plan

Only within ten years, from 1960 to 1970, the number of cars almost tripled in Norway.¹¹⁰ This tendency was equally strong in Trondheim. If the years prior to 1960s were the years of the introductory phase: the car was introduced as a transportation medium, the 1960s signaled the integration phase: the car was becoming a mass-product, a consumer good, but above all, an important agent in the transformation of the society.¹¹¹ An explicit answer to this new condition was the National Road Plan I, representing a significant shift in the Norwegian road planning.¹¹² This plan was to take into account structural changes in the settlements and economic conditions, as well as it was to suggest a prognosis

110 In 1960, the year when car sales were deregulated, there were 225,000 private cars in Norway. By 1970, the number had tripled to 694,000. By comparison, in 2013 there were 2.5 million registered private cars in Norway. In 1960, the number of cars in the municipalities, which would later merge and constitute the new municipality of Trondheim, was 6741 while by 1970, this number would increase to 23,885 private cars. For more <http://www.ssb.no/bilreg/>.

111 Øyvind Thomassen, “Integreringa av bilen i by- og transportplanlegginga i Trondheim i 1960-åra” (University of Trondheim: Centre for Technology and Society, 1990), 1.

112 The integration of the car within society could be seen as a form of cultural translation from the US and other European countries. Norway was relatively early with the implementation of these practices if one takes into account the fact that the leading country in that field, the US, enacted its act, the Federal Aid Highway Act in 1956, a measure that would accelerate the building of the interstate highways.

for traffic growth and its distribution among different transportation means.¹¹³ Undoubtedly, the implications of an emerging car-reality were significant.

The process of urbanization gained momentum while putting pressure on the existing administrative borders. It was difficult to absorb population growth and modern infrastructures (educational, health, housing and communication) within the existing administrative borders of the cities, as these originated from the pre-industrial era. This had also an impact on land use of the surrounding areas: former agrarian and forest areas would now become potential places for new developments. Such a condition was especially evident in the case of Trondheim and its surrounding municipalities. There was a broad understanding by the local politicians that something had to be done so that Trondheim would not “drown”, and consequently lose its importance in the region as the surrounding municipalities were growing faster, both in terms of the population numbers and work places.

In 1960, *Grunnutnyttelse komité for Trondheimsområdet* was set up, being one of the first attempts to introduce the integrated planning practice to Trondheim. The aim was to map the land use and the population numbers in the region, as well as to make a prognosis for future development both in terms of economic and infrastructural parameters. Several professions and institutions, both from the national and local levels, took part in the work of the committee.¹¹⁴ The issue of the outdated administrative organization was solved through the municipal revision: the city municipality of Trondheim would merge with several neighboring municipalities. This caused an increase in the size of the urban area: in 1950, it was 17 km², while in 1970, the urban area increased by 150%, to amount to 42 km². In 1960, Trondheim’s population (including the neighboring municipalities, those that were merged with the city in January 1964) was approximately 105,000 inhabitants, whereas 60,000 of these lived in the former city municipality. Urbanization forces unfolding in the surrounding municipalities started becoming increasingly more visible. In the beginning of the 1960s, the city municipality had a problem of maintaining its population level, while the neighboring municipality of Strinda, which surrounded the city, had 6% annual increase and would by the end of 1960s be larger than the city municipality of Trondheim itself.¹¹⁵ The city municipality of Trondheim would merge with its neighbors, the municipalities of Strinda, Tiller, Leinstrand and Byneset, in January 1964. (27)

113 Dag Bjørnland, *Vegen og samfunnet* (Oslo: Vegdirektoratet, 1989), 240.

114 It consisted of engineers from the Norwegian Public Roads Administration (Vegvesen) both from the central and regional offices, engineers from Trondheim Municipality, as well as the architects from the Municipal Planning offices, and the private advisors with strong informal connections with the highest political levels within city municipality of Trondheim, for more refer to Øyvind Thomassen, “Integreringa av bilen i by- og transport-planlegginga i Trondheim i 1960-åra” (University of Trondheim Centre for Technology and Society, 1990).

115 *Ibid.*, 6.

The new national building law was enacted in 1965, according to which all municipalities in Norway were to have their own general plan.¹¹⁶ This plan was to perform as a tool to control and enhance development – its focus was the planning of physical and economic conditions necessary for societal growth. This could be read as an extension of the social-democratic project unfolding on the national level. *Trondheims Forente Arbeiderparti's* main campaign slogan during the 1963 local election was *En plan for Trondheim*, while the program itself was directed towards active regulation of city development and area planning on the local level.¹¹⁷ (28) The initiation of the work for the general plan was a consequence of the coming municipal merger, being a way to resolve the immediate problems with shortages of areas having development potential. On a more general level, it was a way to enact the new role that municipalities had received from the central government in developing the welfare state¹¹⁸ – the strengthening of local democracy through the process of decentralization. The development of Trondheim's general plan started in 1963¹¹⁹ as a continuation of the work done by *Grunnutnyttelse komité for Trondheimsområdet*. This committee finalized its work in 1962; after that Sør-Trøndelag county, the initiator, was pushed aside mainly due to the two facts: the coming work with the general plan was no longer an inter-communal collaboration, but a collaboration between a future merged municipality of Trondheim and governmental planning institutions. Secondly, Sør-Trøndelag county representatives enhanced agrarian and soil conservation interests, something disfavored by the political leadership in the new Trondheim municipality. Nine hundred local farms, those smaller than fifty hectares, were abolished, being planned for another use. Dragvoll Farm was one of them, and it would eventually be the location for the future university.

The new municipality had commissioned the private advisory firm Andersson & Skjånes A/S¹²⁰ to work with the plan. In addition, the team

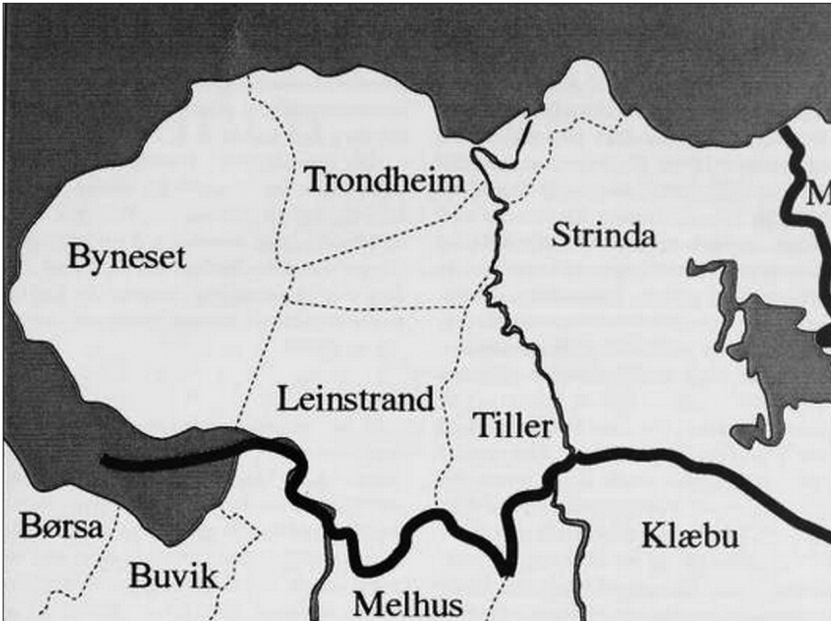
116 Some of the main cities/municipalities had developed their own general plans before, for example, Oslo in 1934 and Bergen in 1957.

117 Trondheim Forente Arbeiderparti, "En plan for Trondheim," page 3: "We live in a period of change. It makes new demands, as well as it offers new conditions. Today it is more necessary than ever to make reasonable and well-thought plans for the development of society. We should not let chances rule. Should we and our descendants reach society that our work aims towards, there has to be purposeful planning – planning for growth and prosperity." The original text is in Norwegian, translation by Mirza Mujezinović.

118 Øyvind Thomassen, "Integreringa av bilen i by- og transportplanlegginga i Trondheim i 1960-åra" (University of Trondheim: Centre for Technology and Society, 1990), 18.

119 It should be noted that there had been some attempts to do some general planning in Trondheim and Strinda in the period from 1948 to 1954.

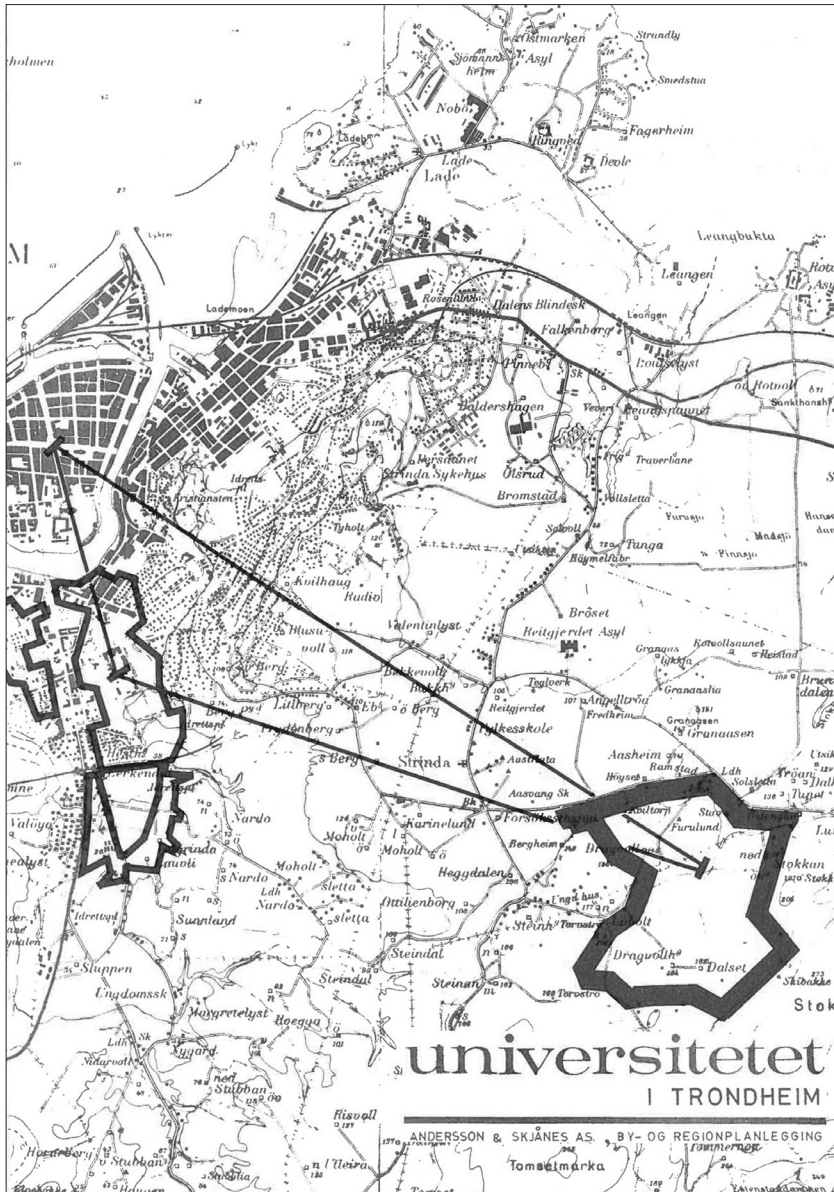
120 Andersson & Skjånes A/S, later Asplan Viak A/S, would eventually become one of the largest and leading consultancy firms for planning in Norway. It was a collaboration between two architects. Tor Skjånes, the son of the former mayor of Trondheim Ivar Skjånes, had won in 1961 with a group of architects the competition for the rezoning of the Midtbyen, the historical center of Trondheim. He was a member of Arbeiderpartiet, though with no active position. Skjånes was also a sporadic participant of Brofoss think tank and a contributor to the party's program in the 1960s. Per Andersson was the chief city planner of Stavanger and the leader of the jury for the Midtbyen competition (that Skjånes had won). When these two architects joined forces in 1962 to establish their consultancy firm, they were regarded as two of the most leading professionals in the field of city and traffic planning. Their office was at the top floor of the Trondheim municipal building.



27: The city municipality of Trondheim merged with its neighbors, the municipalities of Strinda, Tiller, Leinstrand and Byneset, in January 1964.



28: The Labor Party Slogan, 1963.



29: The location for the new university at Dragvoll in relation to the existing city. (Facsimile: The cover page of the report *Universitetet i Trondheim* by Andersson & Skjånes AS, September 1964).

had consisted of the municipal planning office [Byplankontoret] and the infrastructure committee [Bro- og motorvegkomitéen], which was also responsible for the political coordination and the time schedule of the work. The main principles formulating the plan came from Andersson & Skjånes A/S. Within these, the development of the city was conceptualized in relation to the development of infrastructure – especially motorways. The ideal was a city of satellites located on infrastructural axes, one eastbound axis towards the Ranheim area and one southbound axis towards the Heimdal area, clearly inspired by the modernist planning ideology. The development of the city was seen in relation to the traffic solutions and SCAFT principles, which presumed a road system where different traffic types should be separated from each other. Trondheim hereby entered a new epoch in its development.

BUILDING ASSIGNMENT

Dragvoll: the making of the new university

In 1964 the Norwegian Ministry of Church and Educational Affairs had implied that the required building mass for the purpose of the new university in Trondheim be distributed on three different locations: the expanded Gløshaugen area (76.5 hectares), an area in connection to the main hospital at Øya (21 hectares) and a new area at Moholt¹²¹ (at least 100 hectares). Soon after, the Ministry and SBED had contacted Trondheim municipality and a committee was formed consisting of representatives from all three institutions. In addition, Andersson & Skjånes A/S received a commission to conduct a study on the localization of the new university. The committee and the consultancy firm focused on the area of Moholt-Granåsen, previously endorsed by the municipality. In September 1964, it was recommended that the location should be Dragvoll (29), an area not that far from Moholt, in the former municipality of Strinda which was to merge with the city Trondheim the same year. It was a site of 140.5 hectares defined by forest areas on the east and south side, and a ring road on the north. The properties served as agricultural land, consisting of the three main farms Dragvoll, Loholt and Stokkan, with only a few houses. In August 1964, the agricultural agency at the county level [Fylkeslandbruksstyret] exempted this area from agricultural land regulations, allowing it to change its purpose. Their argument was that there were no other areas in Trondheim suitable for the development of the new university.¹²² The site was relatively far away from the city itself: it was 5.5 km from the city core

¹²¹ A year before the municipality in its extraordinary recommendation had affirmed that the 100 ha-area at Moholt-Granåsen be reserved for the new university.

¹²² Lars Folstad, "Sak B nr. 157/1968 Regulering av tomt for universitetet i Trondheim," *Trondheim bystyres forhandlinger, år 1968, B, saker nr. 1–329/1968* (Trondheim: Adresseavisens boktrykkeri, 1969), 249.



30: The aerial photo of Dragvoll, attached to the competition program (Facsimile: Nordisk idékonkurranse om regulering og bebyggelse for universitetet i Trondheim, pages 14–15).



31: Dragvoll Farm in 1952, bought by Trondheim municipality in 1963 for the purpose of the future university (Photo: Fjellanger Widerøe AS).

and 4.5 km from Gløshaugen. In the view of Andersson & Skjånes A/S, one of the main reasons for this location was the nature and landscape qualities of the site, as well as great views of Trondheim fjord. (30–31) Behind this choice was an American-inspired ideal of a university campus in nature, unaffected by the city's noisy atmosphere, as well as a fear that such a large new university, if built in the existing city, would function as a foreign object.¹²³ Andersson & Skjånes A/S concluded that the area was large enough either to be developed as a fragmented low-dense university consisting of independent building volumes, or as a more concentrated uniform complex. Andersson & Skjånes A/S also proposed the guidelines for the differentiated traffic system. The central areas would be reserved for pedestrians while the periphery was to be for vehicular traffic and parking depots. The road network was to have a hierarchical set-up and was to connect to the main road corridors leading to the center of Trondheim. Such organization of traffic was in accordance with the SCAFT principles and it followed the modernist doctrine of traffic separation.

Subsequently, the owners of the properties where the new university would be built were contacted and most of them were interested to sell to the state.¹²⁴ In 1965, the national parliament approved the provisional purchase contracts. These would be covered through the budget grants from 1965 to 1967, mounting to in total 10 million NOK (equivalent to 90 million 2010 NOK). The state had acquired 90% of the suggested area. In addition, in 1965 a state report defining the need for educational infrastructure was issued - the Ottosen Committee predicted that the number of students in Norway would rise from 20,000 in 1965 to 90,000 students in the 1980s.¹²⁵ The new general plan for Trondheim, which was approved in 1965, had anticipated and included the program of the new university to be placed at the Dragvoll area.

The preparation work around the new university was further formalized through the parliament proposition no. 79, *Om opprettelsen av universitetet i Trondheim*, which was forwarded in March 1967. It had implied that a Nordic architecture competition should be held. This proposition would be the basis for the parliament decision to establish new universities in Norway. The same year, the municipal building authority issued a building stop in the area – property owners were banned from building on the properties which would eventually become part of the future university area. Finally, in March 1968, the national parliament decided that two new universities were to be established: one in Trondheim and one in Tromsø. The new university in Trondheim would

123 Ola Svein Stugu, *Kunnskapsbyen: 1964–1997*, Trondheimshistorie 997-1997, Bd. 1–6 (Oslo: Universitetsforlaget, Oslo, 1997), 233.

124 According to the anecdotal version, told by Kjell Spigseth, the municipal commissioner Lars Folstad was a driving force behind the location of the new university at Dragvoll. He would drive around Trondheim, socially engage the local peasants, drink some brew and discuss the possibility of property sales. Interview with Kjell Spigseth and Mirza Mujezinović, 31/05/2011, Oslo.

125 Agnete Vabø and Per Olaf Aamodt, "Kvalitetsreformen og universitetene som masseutdanningsinstitusjon," in *Skriftserie 2/2005* (Oslo: NIFU STEP Norsk institutt for studier av forskning og utdanning, 2005), 14.

have national importance.¹²⁶ On December 5, 1968, the state's representative, SBED, issued an open Nordic two-stage competition for the design of the new university in Trondheim. One month later, the municipal council gave the final approval and confirmation of the zoning plan.¹²⁷

The decisiveness by the state and the municipality to establish an educational infrastructure was essential. This review has shown that the process surrounding the preparations was effective and aim-oriented: only within four years, a decision about new the university was taken; the site was selected; the financial backing for purchase of land was secured; the zoning plan was approved and the competition itself was prepared and issued. There was a strong political backing and little doubt on all levels.

Still, this frictionless process would yield some equally decisive modifying factors that would affect the future university, for example, the unquestionable location within the larger urban context and the planned scale of the development. The constraint of the site, in terms of structural qualities, was not that defining: the site itself was big enough and moderate in its configuration; but the lack of programmatic complexity within the surrounding context was a potential modifying factor: the site was far from the center, being a former farming land with no urban qualities. Such a situation opens up a series of questions that would be addressed in the course of the coming analyses: To what would degree the character and the size of the building assignment manage to compensate for the lack of the city itself? By encountering such a large-scale project on a site with no urban qualities, what imaginaries would be capable of simultaneously solving both the building program itself and creating its own contextuality?

Competition program

The competition program consisted of four main parts, besides the first two introductory ones describing the competition formalities: general ideas about design and construction methods; general ideas about university and assumptions with regard to the future development; the competition area; and the building program for the whole university and for the first stage.

The first part of the competition program was short and precise in formulating core intentions of the competition: the idea of university as an educational institution in a continuous development and transformation was

¹²⁶ The university in Trondheim would evolve from three existing institutions, from the National Polytechnic University College (NTH), the National Teacher's College (NLHT) and the Royal Norwegian Society of Sciences and Letters.

¹²⁷ Some of the landowners, who had previously sold parts of their properties to the state, had found also the additional parts of their remaining properties incorporated into the rezoned university area. Several of them objected, claiming that the agreements, done between them and the state, had been violated. Out of eight objections, only three were taken into account resulting into minor corrections of the plan.

to be translated into the framework of a future project. Both the overall plan and the buildings within it were to be designed so that maximum disposition freedom in terms of future use and extensions would be obtained. According to the competition brief, this was to be additionally strengthened through industrial construction methods based on standardization and modulation. Despite the large size of the future development, the competition program also mentioned the necessity to maintain and further articulate qualities and specificities of the existing site in terms of its orientation and topography. Finally, the program declared that the new plan was to give the possibility for an economic and gradual development where the first phase was to appear as an articulated and functional whole.

The second part of the program dealt with predictions regarding to the educational needs within Norwegian society. The year 1985 was seen as a limit to which realistic assumptions could be made, something that could be explained through the projections presented in *Ottosen report*. This part of the competition program explicitly reflected the position of the project within the state planning policies. The project was seen as part of the overall state educational infrastructure, as for example stated in the competition program: “the expansion possibilities in Oslo and Bergen were not that substantial, therefore the development of the new university in Trondheim was to facilitate future national needs”.¹²⁸ A similar overarching approach also went the other way in defining what type of development that was *not* to take place. The earlier expansions of Oslo and Bergen universities had mostly absorbed the need for science students, and “it is not in the interest of state to create a large number of such student places in Trondheim until Norwegian industry has requested so”.¹²⁹ The competition program reflects that the project was a direct answer to the societal needs as defined by the state apparatus.

What should be noted is the openness of the competition brief, for example when it comes to definition and specification of areal demands. This could be discussed in three interrelated ways. Firstly, the idea of user groups was not an institutionalized practice within preceding programming processes: The program was written in Oslo, and could be seen as a product of top-down bureaucratic decision-making trajectory between SBED and the central government. Secondly, it is about the lack of references – the large-scale university of the 1960s was an unknown type since the idea of mass-education was in its very making, an equivalent university competition was held in Oslo the year before. Thirdly, it is about the status that the architect had at the time.

¹²⁸ This was a bit of a strange statement because the competition for the expansion of the University in Oslo was held also in 1968. This competition was equally ambitious in its size and program. Per Strøm, “Nordisk arkitektkonkurranse om regulering og bebyggelse for Universitetet i Trondheim” (Oslo: Statens bygge- og eiendomsdirektorat, 1968), 8.

¹²⁹ *Ibid.*, 8.

The architect was in *position* as the prime builder of the evolving welfare society. His societal mission was to solve emerging building assignments - imagining and designing a future university was one of these.

This discussion on openness may also be projected onto the competition brief's final part that describes the quantitative base for both the overall development and the first building phase. Insecurity in terms of future scenarios, lack of references and insufficient experience in regard to such a particular building assignment were all translated in highly general areal assumptions. For example, the disciplines of philology and social sciences would need 135,000 m², technology education 100,000 m² and library 50,000 m². Only some ambiguous remarks in terms of interior organization were given.¹³⁰ A similar generality was also projected onto the first stage; the only difference is that the program was more specified in terms of what types of rooms were needed, while their mutual relations were not stated. The room program for the whole university of 700,000 m² was written in two pages, while the room program for the first stage¹³¹ of 41,000 m² was written in one page. The complete program brief was a booklet consisting of some twenty pages – half of these were used for visual material, images and an urban context diagram. This is something very different from today's competition programs, the latest one for the new governmental headquarters in Oslo was specified in several hundred pages.

The Jury Critique

After the first stage, the jury had stated that the main issue deciding the outcome of the competition was the notion of *bebyggelsesstruktur*: an appropriate framework, which would give good potential for a detailed design of the first stage, but without being too rigid for future extensions.¹³² By focusing on these criteria, the jury clearly opposed to approach the university as a finished building complex. Rather it searched for proposals with generality where the new university would function as a structure capable of providing a continuous development and transformation. This was also one of the points discussed in the competition where such a scenario was seen as highly demanding.¹³³ This had also influenced the issue towards the disposition of program. The projects

130 For example, the description of the area for technology education was formulated in the following way: "Technology education and research (eventual extension of NTH, which cannot be placed at Gløshaugen) is 100,000 m². This area will partially contain spaces for employees and students (relate to the table above), but mainly it will contain laboratories needing large floor area and tall ceiling." Ibid., 17.

131 The fixed prerequisite was the design of the first stage (some 41,000 m²). The development plans for the new university that were put forth in front of the national parliament in 1966–67 and approved in March 1968, were dealing exclusively about the first building stage.

132 The original text: "Oppgave kan presiseres slik: Ut fra hensyn til bygningsstruktur, topografi og trafikkforhold, skal man finne frem til en ramme som gjør det mulig mer detaljert å utforme første etappe uten at man begrenser fremtidige muligheter." "Regulering og bebyggelse for universitetet i Trondheim – Jurys generelle bemerkninger etter bedømmelse," *Norske Arkitektkonkurranser*, n. 170 (1972): 3.

133 Per Strøm, "Nordisk arkitektkonkurranse om regulering og bebyggelse for Universitetet i Trondheim" (Oslo: Statens bygge- og eiendomsdirektorat, 1968), 10.

with a clearly defined center had a tendency to be somewhat monumental and thus too binding in relation to future extensions. They were less favorable than the de-centralized mat proposals, as these articulated programmatic variation in a more eloquent manner. An equivalent attitude towards conceptual openness was also projected on the issue of construction. In the jury's opinion, it was clear that building methods and technology would evolve during the time of development of the new university, something that would unfold for several decades. In its final critique, the jury had stated that it favored projects incorporating systems with simple structural dispositions and a freer relationship to the program simultaneously as these were easily adaptable to the demands of traffic and to other technical installations. Such projects could incorporate variability capable of absorbing demands of the future, while the proposals which were based on rigid patent solutions were seen as least plausible and therefore disregarded.¹³⁴

The size of the future university was comparable to the size of the central part of Trondheim, *Midtbyen*. The issue of integration was unavoidable: how the university would function in the early stages in relation to the city and how it would influence the future urbanization processes in the area. Both scenarios started with the university being one of many points within the network of roads and public transportation systems. In the jury's view, the university's integration with the city was an infrastructural matter. After the first stage, the jury had made only *one* explicit recommendation and that was on the issue of potential traffic solutions – three of the planned four-lane highway connections should function as a basis for integration within the city road network.¹³⁵ It was, however, within the jury's traffic discussion that the uncertainties around the project became apparent: "The University will be fully developed in some 50 to 80 years. Subsequently, if we compare how the transport conditions were in the period between 1890 and 1920, we can clearly see that it is impossible to make realistic assumptions about development in such a long time span."¹³⁶ Despite the uncertainty that the project had in terms of its encounter with issues of future conditions, the jury proactively suggested possible directions regarding the project's infrastructure and traffic solutions. As implied earlier, the jury had recommended the university's connection points to Trondheim's road system based on the traffic advisor's assumptions, but it had disregarded those assumptions that could negatively affect the spatial qualities of the future project. This relates directly to the assumptions that the car would be the main transport medium – the jury was critical about the scenarios, within which

134 *Ibid.*, 5

135 The assumptions for these three suggested connections were based on a calculation sketch done by one of the traffic advisors – it is unclear how thorough these were.

136 *Ibid.*, 5.

parking would eat up large portions of the site causing noise issues and air pollution.¹³⁷ The jury had reacted against its exclusiveness – the car was a threat – at some point even as overrated.¹³⁸ In order to offer a way out, the jury had recommended strengthening public transport either by political decisions or by implementing new technological inventions.

The notion of generality appears on several levels, from being a part of the conceptualization of the overall building form, to the construction principles and infrastructural solutions. The jury had a clear understanding that the completion of the new university project in Trondheim would happen over several decades and as such, its main constraint would be its capacity to encounter future conditions. It aimed at projects that would be able to absorb change and transformation over a longer period, also in terms of evolving building technology and infrastructure. Subsequently, two specific issues would appear to be of importance: *bebyggelsesstruktur* and infrastructure. What was lacking in the jury's critique was the discussion on the local context itself. The jury did not problematize substantially how an eventual project would encounter the non-urban context and the potential of the program to relate to this issue. In my opinion, both of the notions of *bebyggelsesstruktur* and infrastructure had a clear potential to intertwine this discussion with the discussion on the notion of future. The jury had clearly defined the framework for how to encounter the proposals, yet it is an open question how informative the jury's discussions had been in understanding the idea of the new university. If there had been another jury, how different would this framework be and how would it have affected the outcome of the competition? My conclusion is that the jury's critique had a strong focus, something that would turn out to be compliant with the imaginaries suggested in Henning Larsen's proposal. This proposal had also managed to articulate the idea of generality simultaneously as it offered additional perspectives, among others the enhancement of its own contextuality. A more in-depth analysis and discussion on these issues will unfold in the coming section.

Henning Larsen, the Academy and the Team

After having worked for Arne Jacobsen and Jørn Utzon, Henning Larsen would set up his practice in 1959. Two years later, he won the competition for a new university in Stockholm at Frescati, followed up by the second prize in the competition for the extension of Berlin Free University in 1963.¹³⁹ The 1960s was a productive period: the office earned its living by doing planning

¹³⁷ Ibid., 5.

¹³⁸ Ibid., 5.

¹³⁹ The office would be asked to design the first phase (25,000 m²) of the Institute of Physics at the Free University. The construction of this project unfolded from 1976–1982. <http://www.henninglarsen.com>

assignments for public institutions, among others for Copenhagen municipality and its road department, while it delivered numerous competitions.¹⁴⁰

There are two interrelated aspects that one should have in mind when contextualizing the project in Trondheim within the framework of Henning Larsen's office. Firstly, during the 1960s, Henning Larsen was teaching at the School of Architecture at the Royal Danish Academy of Fine Arts in Copenhagen. He would receive professorship in 1968, becoming the head of the B department [Afdeling B]. In the interview, Henning Larsen recalls, "the school was in a terrible flux at the time. There were no professional discussions. The only thing students discussed was the politics."¹⁴¹ Still, as Knud Larsen points out, "Henning Larsen was quite a popular professor having some very good students, some of whom worked with concepts similar to the ones applied in Candilis-Josic-Woods' Berlin University project."¹⁴² Being a teacher at the school made it possible for Henning Larsen to be exposed to new tendencies, and it was common to engage a professional collaboration with students. It should be also noted that concurring structuralist ideas were already circulating within the office itself, as in the second half of the 1960s a new generation of architects started working with Henning Larsen, for example, architects such as Troels Troelsen and Knud Larsen. These young professionals exercised a different approach to architecture production from the one by Henning Larsen, which in many cases was more traditional.¹⁴³

140 Troels Troelsen describes the period: "One of them [assignments for municipality] was a big center, outside Copenhagen. We made a general planning, Bergby, it has been realized. It gave the money for the office, but it was also a way to get into detailing. It was many hours. There were jobs like that giving us an income. Once we earned some money, we were doing some competitions with much more idealistic concept. Of course, we were much more idealistic with motorways and town planning. It was quite different. The town plan in Bergby was a structure like that in Berlin University; it was in the same time. It was quite idealistic. We had a stable income from this work for several years, but we had some peaks. I think we had some jobs for Greenland. The office was between 15 and 30 people for long periods." Interview Henning Larsen, Troels Troelsen and Mirza Mujezinović, 05/10/2010, Copenhagen.

141 In the same interview, Troels Troelsen follows up, "There were two departments. There was a communist, professor Ejnar Borg leading the B department, which was very radical socialist department. Henning became the head of this department. They [students] were also discussing politics, but they had much more structure; they made many projects. Some of them started making projects in this structuralism way." Interview Henning Larsen, Troels Troelsen and Mirza Mujezinović, 05/10/2010, Copenhagen.

142 Knud Larsen says: "It was a cake-city [kakeby] on columns with cars placed below; one went up in an endless horizontal structure with small streets and gardens. These young students, some of whom would later become professors at the academy, had highly radical ideas. There were two students at the B department, Peter Bjerrum and Claus Roloff [current professors at the academy], their ideas were important for our process and that we went for such a cake-concept [in Trondheim University project]." Interview with Knud Larsen and Mirza Mujezinović, 31/08/2009, Oslo.

143 In the interview, Troels Troelsen clearly explains his fascination for structuralist thinking, simultaneously as he touches the spirit of the period: "I think that '68 period was special because of all the things that were going on the universities, the revolt of the students. It meant that we had rejected all the past mass productions of the 1960s. In a way, we disliked it, but on the other, we were fascinated by it. In literature, it was the discourse of structuralism. It was also something that we were inspired by and we translated it into architecture. We felt that the traditional façades on a building was something old-fashioned. We were making structures. It was a strange period, in fact we did not learn so much about creating proportions, façades and things like that. We were much more certain making it from above. We were a team, and Henning was all the time little against us. He thought that architecture should have traditional qualities: it should have a façade. Later he was of course right." Interview with Henning Larsen, Troels Troelsen and Mirza Mujezinović, 05/10/2010, Copenhagen.

Secondly, Henning Larsen did not exercise a traditional master-apprentice model at his office. According to Troels Troelsen, it was a democratic place where “Henning had the ideas that we should discuss. There was as a tradition of teamwork from the start. This followed a project.”¹⁴⁴ Interestingly, as Knud Larsen recalls, the office had a competition studio, a little separate space, where Troels Troelsen, Nils Roloff and Knud Larsen worked as the office’s competition squad in the late 1960s.¹⁴⁵ In the same interview, Knud Larsen remembers that it was a prolific period with twenty-five competitions done in a four-year-period.¹⁴⁶ Here, it comes forth also that Henning Larsen was not present when the competition for the new university in Trondheim was initiated, as he was on a journey to South America:

It was a two-stage competition, so we did the first stage without Henning Larsen as he was absent. We used those students [Peter Bjerrum and Claus Roloff] as our assistants. Henning was present during the second stage. The project did not substantially change; it was further refined and detailed... His contribution was the aerial hand sketch of two intersecting streets and the illustrated introductory argument, something he was good at.¹⁴⁷

The preceding period of the 1960s and the competition period during which Henning Larsen’s university project in Trondheim was developed (1968–1970), witness an interesting context within and around Henning Larsen’s office. On one side, there is an intertwining relationship between academia and professional practice, and on the other, organizational openness within the office itself. Such a condition would undoubtedly influence the making of the university project.

Copenhagen – Trondheim

The competition took place in Copenhagen in the period 1968–1969, while the jury’s final decision after the second stage came in February 1970. SBED demanded that Henning Larsen established a local branch office in Trondheim. The intention was to develop a local building industry as the university project

¹⁴⁴ In the same interview, Henning Larsen says: “We have had a very flat structure in the office, I hope, [starts laughing]” where Troels Troelsen replies: “Curiosity is one of Henning’s main qualities. You have been very curious to see this or that, try this, try that. It was a quite fruitful way.” Interview with Henning Larsen, Troels Troelsen and Mirza Mujezinović, 05/10/2010, Copenhagen.

¹⁴⁵ Nils Roloff, Claus Roloff’s brother, died at a young age. Troels Troelsen entered the office in 1965. He would become a partner remaining at the office until the present day. Knud Larsen started at the office in 1966. After having been involved in all stages of Trondheim University project, he would leave the office in 1978. Knud Larsen would enter a teaching position at the architecture department at NTH/later NTNU in Trondheim, from where he would retire in 2010. He is a professor emeritus.

¹⁴⁶ Interview with Knud Larsen and Mirza Mujezinović, 31/08/2009, Oslo.

¹⁴⁷ Interview with Knud Larsen and Mirza Mujezinović, 31/08/2009, Oslo. In the second stage, the team would be expanded with five additional architects where one of them was recruited from Knud Holscher’s office with experience from project for Odense University. Comment by Hanne Wilhjelm, 02/10/2015, Copenhagen.

was of a considerable size, and as such, was suited for modulation.¹⁴⁸ After landing the contract in the fall of 1971, seven Danish architects, among others, Knud Larsen and Troels Troelsen, moved to Trondheim.

The newly established office was on the second floor of the old Kunstindustrimuseum in Trondheim. It was a Danish office with an address in Trondheim.¹⁴⁹ Until the autumn of 1972, there was no fixed program brief: the office was paid on an hourly basis to develop a building system.¹⁵⁰ This opened up a possibility for an in-depth exploration, and ideas could be nurtured without a substantial time pressure. Large models were built, for example 1:20 street models; different forms of sun protection systems explored, vegetation strategies suggested, etc.

The sketch design phase for the first two developmental stages commenced in September 1972. In 1973, several Danes moved back to Copenhagen, among others Troels Troelsen, while Knud Larsen remained.¹⁵¹ The concrete structure, the street, the street fixtures, and the glass roof would be designed in Trondheim, while the auditoriums in Copenhagen. Henning Larsen would not visit the Trondheim office so often.¹⁵²

After having quite an anarchic leadership at the branch office in Trondheim, as well as SBED demanding a Norwegian project manager, Henning Larsen appointed Per Knudsen, as a project manager.¹⁵³ The work with the new master plan and further detail design would take place from 1973 to 1974, with 1975 as the year of tendering. The construction of the first phase started in February 1976, with its completion in 1978, the outdoor areas were finalized

148 Troels Troelsen mentions the issue of intended collaboration with the local engineers. Henning Larsen explains further: "They wanted us to open an office in Trondheim because they wanted to develop things in Norway, and not in Copenhagen. The project would set an example for the building industry. That was the real cause. I was very much against making an office in Norway because we had the office in Copenhagen. We worked also in Berlin. The head of the department [SBED] told me: 'You must have an office in Norway, it's a must'. I said that we have another office in Copenhagen and one in Berlin, so we cannot have a third office. Then he replied: 'I am putting a new plate on the record player'. He repeated: 'You are going to have an office in Norway.'" Interview with Henning Larsen, Troels Troelsen and Mirza Mujezinović, 05/10/2010, Copenhagen. 149 Knud Larsen explains: "At the beginning, the Danes were in majority. It was a Danish style characterizing the office. Eventually, we expanded to fifteen people. Many students came in, some of whom would later become known, among others Kristin Jarmund. At the time, the office was seen as a stimulating environment, mainly due to its different style. We had a woman that came and made warm lunch. We drank beer. There was a ping-pong room as well, if one needed exercise in the middle of the working day. SBED took photos because it was so continental and non-Norwegian [unorsk]. It was quite a sight." Interview with Knud Larsen and Mirza Mujezinović, 31/08/2009, Oslo.

150 Interview with Henning Larsen, Troels Troelsen and Mirza Mujezinović, 05/10/2010, Copenhagen.

151 The reason for repatriation was a family matter. Comment by Hanne Wilhjelmsen, 02/10/2015, Copenhagen.

152 Knud Larsen: explains: "He [Henning Larsen] was seldom in Trondheim, maybe couple of times a year. We informed him what and by when decisions were to be taken, for example in terms of material choices. If he did not answer, we would make a decision. He would be angry and dissatisfied when he came. We told him that it was his own fault. We were consequent about letting him know about needed decisions, if he did not take them, we would decide." Interview with Knud Larsen and Mirza Mujezinović, 31/08/2009, Oslo.

153 Comment by Hanne Wilhjelmsen, 02/10/2015, Copenhagen. Originally, Per Knudsen was hired by Knud Larsen. Interview with Knud Larsen and Mirza Mujezinović, 31/08/2009, Oslo. In the 1980s, Knudsen would take over the project, yet he would maintain counseling with Henning Larsen's office on the potential modifications of the project.

a year after.¹⁵⁴ The Norwegian consultants involved with the development of the project were Arne R. Reinertsen, Byggeteknikk with responsibility for structure, Kristian Gjettem for plumbing/ventilation and Gunnar Paulsen for electrical installation. The landscaping was done by A/S Landskapsarkitektene by Bjarne Aasen.

EMPIRICAL ANALYSIS

The following empirical analysis is structured around six aforementioned themes, inspired by Jacques Fredet: The large-scale projects in relation to the larger urban context; The large-scale projects in relation to the immediate surroundings; The mode of organization; Infrastructural principles; *Struktur* – Structure and Development possibilities. The same thematical structure is applied in all three cases.

The Project and the Larger Urban Context

The 1960s were the age of technological proliferation. Satellites were coming in the orbit, the development of electronic communication was gaining momentum and the presence of the mass media was becoming more apparent. The belief in technology to affect social relations was evident, something that had also implications for the architecture culture of the time.¹⁵⁵ In the following discussion, I will address how this technological frenzy informed architects' discussion on the new university. The question of physical location within the larger urban context is at stake: to what degree did the socio-technological imaginaries compensate for the lack of an urban context?

There were twenty-four proposals submitted after the first stage, two of which were disqualified for not using the location at Dragvoll-Stokkan area as the site.¹⁵⁶ Interestingly enough, the media would focus, on one side, on the winning proposal of Henning Larsen and, on the other, on the disqualified proposal of the American architect Seth Seablom.¹⁵⁷ Both projects had departed from the contemporaneity of the late 1960s, clearly influenced by a fascination for

154 The synopsis of the process comes from *Universitetssentret på Dragvoll Del 1*, Ferdigmelding nr. 233, Statens Bygge- og Eiedomsdirektorat. 1994.

155 Norbert Wiener's statement "Information is information, not matter or energy" in *Cybernetics: or Control and Communication in the Animal and the Machine* (Cambridge: MIT Press, 1948, 2nd revised ed. 1961), 121 or even its architectural counterpart of Doxiadis' ecumenopolis show that zeitgeist started slowly dictating its own intellectual and consequently architectural sensibility. The latter is excellently portrayed in Mark Wigley's article "Network Fever," *Grey Room*, n. 4 (Cambridge: MIT press, 2001), 82–121.

156 One of these disqualified competitors resubmitted his reworked proposal to the second stage, consequently this proposal was returned without even being reviewed.

157 The Norwegian architecture magazine *Arkitektnytt* had devoted a whole issue to this competition, to its winner and its disqualified participant. The main Danish magazine *Arkitekten* had followed up, expectedly enough since the winner was a Danish office and the discussion contestee was an American with the address in Denmark. Seablom's project was extensively presented, being given as much space as Larsen's winning proposal.

emerging mass communication and mobility, yet they had offered two different narratives to what a new university was to be in relation to society and the city itself. Seth Seablom¹⁵⁸ proposed to locate the university development on several unbuilt plots within the central parts of the city, suggesting a full integration of the university with the surrounding urban context. Larsen strictly followed the competition program, suggesting the university development on the fringe of the city at Dragvoll. The empirical material, such as the conducted interviews with the authors of the two projects, show that there was no mutual exposure or any kind of direct influence between these two projects. They were independent of each other. The reason why I choose to bring forward the disqualified project is due to its highly eloquent argument, its contrasting design solution to the one suggested by Larsen and the fact that the architectural media was interested in it along with the winning proposal. As such, Seablom's project functions as a Macguffin – a plot device – in the analysis of Larsen's project and its encounter with the larger urban context. It helps open a discussion on how the large-scale as exemplified through the program of university relates to the city at large.

Seablom had identified three types of universities: the academic university, the technocratic university and the socio-critical university. The first one was a traditional one, offering scholastic education, organized hierarchically. This type of university resided in campus-like structures where each discipline had its own pavilion building. Such a university did not relate to the city functions that surrounded it. The technocratic university was that of mass-education, offering well-coordinated professional programs. This type produced as many qualified professionals as fast and as cheap as possible. These universities were

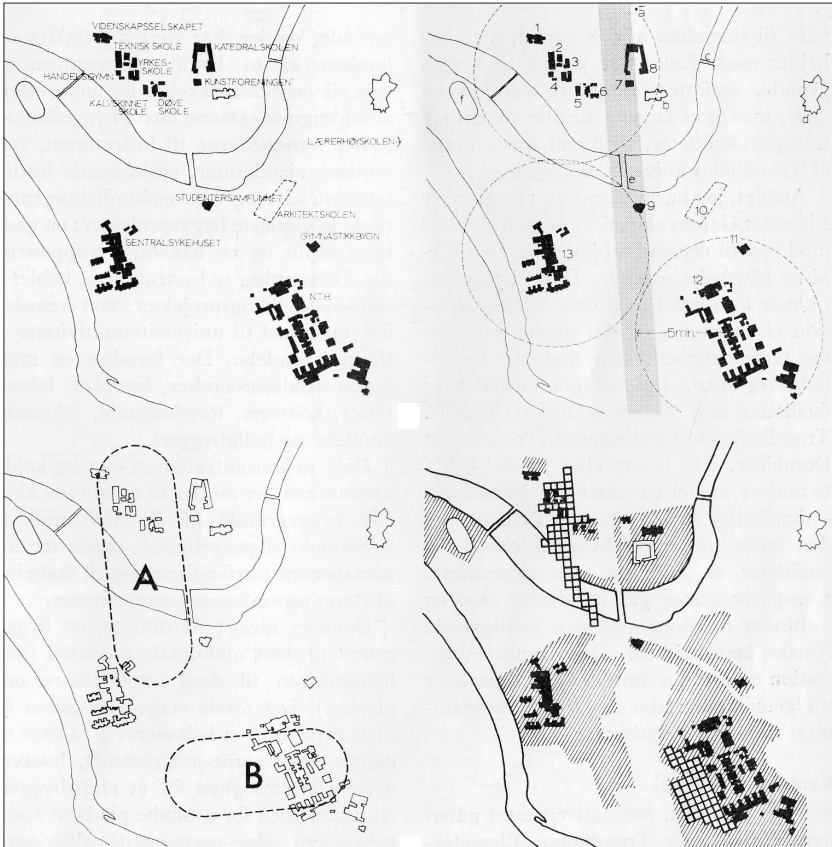
158 The architect behind the disqualified proposal was an American of Scandinavian descent, Seth Seablom, a promising young architect with a diploma from the University of Pennsylvania. He held two master degrees – one in architecture (studied with Louis Kahn) and the other in city planning (studied with Edmund Bacon, Denise Scott Brown and Paul Davidoff). The reason for his arrival to Denmark in 1963 was the Fulbright scholarship for his studies at the Danish Royal Academy. Here he met Knud Rasmussen who would later become the chief city planner of the city of Copenhagen and with whom he successfully collaborated on several major competitions (housing competition in honor of Paul Henningsen – winning first prize, the planning competition for West Amager – winning second prize, Tivoli competition – winning the buyer's prize). In a letter conversation, Seth Seablom told me that he had helped Knud Rasmussen with his thesis project for Strøget, which focused on developing a walking street in Copenhagen. The year was 1964. Seablom would eventually come to Oslo to collaborate with Erik Hultberg (the H in the HRT architecture office, later HRTB) and Olaf Skage (who would later become one of the leading Norwegian landscape architects). In 1965, they did the Gullestrup competition in Herning, Denmark, receiving the buyer's prize. In 1966, they won yet another buyer's prize in the competition for Elverum Forestry Museum. The collaboration with Erik Hultberg terminated due to the project credit dispute. The following year, Seablom collaborated with Marcin Boguslawski (later the B in the HRTB architecture office – HRT would make him a partner) on the Permanenten Museum competition in Bergen, winning second prize. After several years of fruitful collaboration with Danish and Norwegian architects, Seablom left Scandinavia to lecture at Cambridge University. In 1968, he started teaching with Ian McHarg, the founder of the Department of Landscape Architecture at the Pennsylvania University. It is from here that he encountered the Trondheim University competition, and did the first phase. The development of the second stage he would do in Copenhagen. Seablom's proposal was disqualified because he did not follow the competition brief. It was miraculously found by young Trondheim architects, led by Ola Steen soon after the deadline. A similar scenario happened when Seablom did the Skjetten housing competition, where he was disqualified with his proposal "Love" – one-by-one-meter fold-out box painted red. It was found by architecture students and consequently taken back into the exhibition.

housed in the prefabricated large-scale structures programmed with education facilities and certain culture programs. They allowed multiple reorganizations and potential expansions, but still they were isolated from the surrounding city, usually placed on the outskirts of the cities. The socio-critical university was a type with a symbiotic relationship to the city – there were no clear borders between the university and the city.

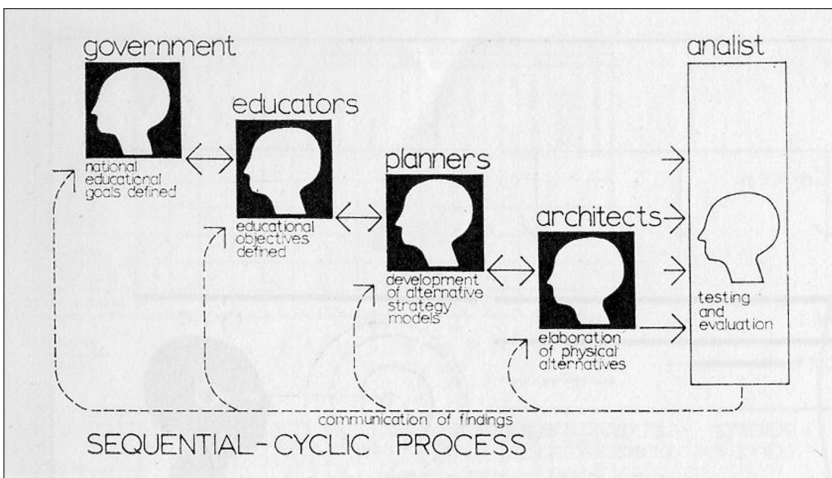
Seablom used the example of Oxford and Cambridge to explain this type. Such universities did not have a clearly defined form, yet they revolved around the notion of an open environment, where buildings were just shelters for knowledge and information exchange. Here, the teaching staff would include as much of young and old scholars, as those from different interest groups and other areas external to academia. The teaching methods would be a mixture of formal and informal teaching: this model favored the *singular* student and not a student who was merely a part of the state's statistics and predictions.

It is on the third type that Seablom had based his proposal. He went against the competition program and placed the new university within the city center. (32) The new university was to perform on three conceptual levels. On one side, the project should improve the city itself: the public facilities of the university should function as agents of urban integration and renewal. On the other side, the university project should complement the city itself both in terms of the city's programmatic and structuring parameters. Thirdly, the university project should tap into the existing communication infrastructure. Within this framework, focus was given to the procedural approach – physical plans were to be replaced by the organizational strategies as well as the planning of the new university was not to be a linear process, but a *sequential-cyclical* one where different participating groups within the project would influence each other. Clearly, the information feedback loops of cybernetics, the notion of systems and the idea of the participatory processes were slowly entering the architectural discourse. (33)

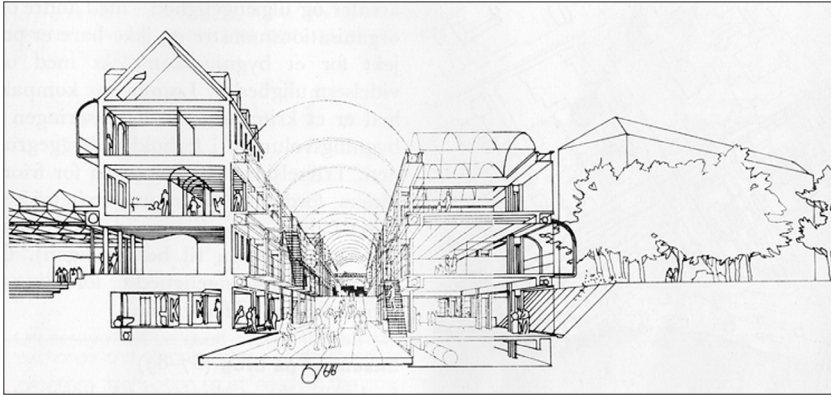
Seablom's proposal was not only a theoretical discussion, but it was also a physical proposal. He had suggested two developments – one growing out of Kalvskinnet area and crossing the Nidelven River and the other one on the west slopes of Gløshaugen (the campus of polytechnic University College of NTH). Both developments were seen in relation to the already existing educational facilities out from which the new university would grow. On the other, these places were chosen because the site owners were public institutions – the municipality and the state. Both developments were conceptualized around the division between the primary activities (those that related to the city simultaneously as they combined *information storages* – libraries, exhibitions and other supporting facilities) and the secondary ones (those that exclusively related to the academic activities – education cells, lecture halls, laboratories



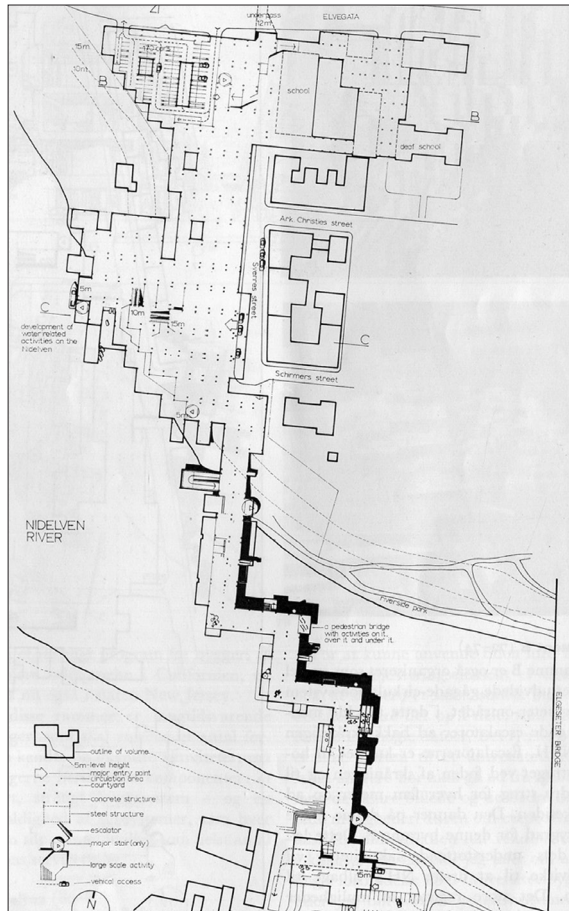
32: The socio-critical university – Trondheim University project, Seth Seablom (Diagrams are taken from *Arkitekten* 26/1970).



33: Sequential-cyclic process, Seth Seablom (Diagram is taken from *Arkitekten* 26/1970).



34: Glassed-in street, Seth Seablom (Drawing is taken from *Arkitekten* 26/1970).



35: The university in the city, Seth Seablom (Drawing is taken from *Arkitekten* 26/1970).

and traditional classrooms). The lecture halls were to be cinemas during the night – aspects of leisure and cultural encounters were becoming an integral part of the urban (life) experience.

Seablom's proposal took a position where the new university was to be defined through its symbiotic relationship with the urban context. One could read two tendencies within this approach. On one side, there was a movement away from the modernist zoning principles (the new university was not to be a clearly defined area/programmatic zone, but an institution integrated with other city programs). On the other, the program of a university was to be used as an agent to initiate urban transformations. Both tendencies dealt with the city and how it should be approached. The university's encounter with the city was to renew the very idea of the university since the existing typologies of academic and technocratic university, two typologies that were independent of the larger urban context, were seen as outdated.

The argument behind Seablom's project was coherent, but the way it was translated into architecture was very much bound to *hegemonic* architectural expressions of the 1960s – it was a *structuralist* megastructure growing around and within central areas of Trondheim. (34–35) In a way, there was a new sensibility emerging because of new ideas (for example Wiener's cybernetics theories and Davidoff's theories of democratic planning and development processes), but these had not yet yielded their own particular architectural form. On the idea level, his project was already in the future while its architecture was still in the 1960s.¹⁵⁹ The architectural intervention was similar to the one in Candilis-Josic-Woods' Frankfurt-Römerberg Competition from 1963, where the architect had proposed a continuous structure as an infill growing out of the existing urban tissue towards the riverbank.

Henning Larsen was equally elaborate in terms of questioning what kind of imaginary that was to enhance the idea of university. The departing point was to what degree the new university should be dispersed or concentrated. These two opposing approaches were seen as a product of a changing university condition, defined by the processes of specialization and disciplinary crossovers by way of pluralist differentiation of the sciences.¹⁶⁰ These processes, the architect further argued, were giving rise to numerous new autonomous entities (faculties and institutes), which depended on specific research infrastructures and facilities. What Larsen identified as a problematic issue within this new condition was a mutation of the universities into large and chaotic building complexes. To counteract this issue, Larsen focused on the idea of communication: on one

¹⁵⁹ One of the largest buildings in Trondheim, Realfagbygget for the natural science facilities at the polytechnic university, was constructed on the slopes of Gløshaugen in the late 1990s – at the same location Seablom suggested for one of his superbuildings.

¹⁶⁰ Henning Larsen Tegnesteue, *Universitetet i Trondheim – konkurranseprojektet 1969–1970* (Copenhagen: Henning Larsen Tegnesteue, 1970), 15.

Takket være moderne elektro-kommunikation og en stadig øget og differentieret transportskik har vi i dag ikke blot strukturerne A B C, men også det fjerntsynede eller det rullende universitet. DVS. en mulighed for at etablere lægecentre langt uden for universitetets rammer, i andre byer, i fjerne egne.

Undervisningsfaciliteter er ikke længer synonyme med bygninger, hvor fleksible de end måtte være, men snarere med alle former for kommunikationsmidler. Det relativt let udførlige apparatur er såbort i funktion at de hurtigt vekslede sæmfundstidspoint og omgivelser i selve læringen lagt de smidige bygningsprojektorer.

Endnu i dag er den ny elektroniske teknik dog bundet til universitetets fysiske univers. De allerede eksisterende midler til en demokretisering, effektivisering og spredning af undervisningen får dog kun ringe effekt, fordi de er for dårligt organiserede.

Universitetet er i dag både et analogt-til-analogt universitet og et traditionelt biblioteksuniversitet og et langt accelereret, men endnu uorganiseret elektronisk universitet.

I planlægningen af universiteter må vi i dag stadig tage hensyn til denne traditionelle opbygning. Men samtidig er det uorganiseret nødvendigt at planlægge parallelt i baner, der faktisk udover glidende fysiske begrænsninger. Som udgangspunkt kunne man på nationalt plan tænke sig en effektiv research i udbudet af moderne kommunikationsstrukturer. Dette forholde med en mislæsning og forskning af relevante pædagogiske metoder.

En umiddelbart forenligende, national opgave synes og så at være etablering af radio- og TV-kæder udelukkende til undervisningsbrug fremfor sin karakter til distribution af underholdning.

Disse udvikling af universitetets fysiske aspekt fører mod en dematerialisering af universitetet i et kompleks af kommunikation (fysisk og infra-strukturer). Vordenuniversitetet er altså sæveligt og allersæveligt værende. Hvor man end befinder sig kan man studere i det færdi dematerialiserede globale universitet. Igen et universitetet integreret i sæmfundslivet – det at lære bliver igen et lege.

Analysis of an udvikling 17

1. vier universitetet, dels med sine egne som projektet angår, dels i relation til Trondheim. Det uden vides, hvilke ingredienser, projektet i store træk består af:

- a) fleksibilitet opnået gennem en infrastrukturel, der til enhver tid muliggør tilpasning til vekslede omstændigheder uden ændring af bygningerne. Installationerne – gas, vand, elektricitet, elfeb, ventilation osv. – ligger som løsene fornyninger i bygningens væg og loft, så f. eks. et bibliotek når som helst kan omstilles til trykfabrik.
- b) ekspansion forudset gennem maksimale udvidelsesmuligheder – et strategisk spørgsmål om, hvordan første etage planeres, så flest mulige værelser holdes åbne til følgende udbygninger og færrest mulige knidninger, i form af værelsettes ydre funktioner, lægges i vejen for fremtidige forbindelseslinjer. Disse etage planeres i midten af udbygningsområdet med de mindst mobile dele som f. eks. bogopbevaring i portalerne. I den fremtidige udvikling kommer første etage, trods sin centrale placering, ikke til at danne et center i traditionel forstand, idet fælles funktioner som kantiner, samlesæver, biblioteker vil blive jævnt distribueret i hele strukturen.

Komplekset har forskellige grader af tilgængelighed efter anvendelse på en skala fra det mest til det mindst offentlige. Absolutten er svært mulig i størrelsen, hvor forbindelserne fra sted til sted skal kunne sine størrelser. Her ligger også de mest benyttede fællesfaciliteter – kantiner, amfiteatre, lesetele, børssever, vognstater, butikker. Indad og opad i strukturen fra fodgangens etage planeres mindre og mindre benyttede særfunktioner. Særligt er funktionerne indpasset ifølge et daglivsrytme, hvorved de kvalitativt skvel som kvantitativt opstår nødvendige og distrækkelige lyfforhold.

c) integration af discipliner muliggjort af de i fysik fremnede optimale formlingstyper mellem fagene, projektet opererer med. Med de afstakne rammer tilstræbes et fagligt samvær på skel fritidskøber som på et flygtigt plan mellem humanerit, naturvidenskabstisk o. s. v.

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d) koordinering af computer af funktioner og rum, hvorved ethvert rum til stadighed kan udnyttes optimalt i forhold til den skiftende helhed.

2. vier en situation med den under skibe i tænkte organisationsstruktur. Hertil kommer nu andre fremtidige forhold som f. eks. stigende integration og interaktion med den omkringliggende by.

- by og universitet er på vej til at smelte sammen
- dele af byens rum- masse vil blive inddraget til universitetsfaciliteter
- både fysisk kommunikation og infokommunikation effektiviseres
- biblioteker udvikles til høj effektive informationscentre, hvilket øger universitetets kontaktfiler med både by og region
- byen smelter sammen med universitetet
- Trondheim = universitetet.

3. vier hvorledes universitetet og by i stigende grad integreres i region og nation.

- udbygningen af de nødvendige klimatiserede rum sker dels i form af generaliserede strukturer, dels som kortids- strukturer, dels som mobil- strukturer
- Forskelle mellem by og land og mellem by- bolig universitet udvikles stadig mere. Information og kommunikation og dermed lægeprocesserne fortløber i stigende grad via infokommunikation. Både i nær og fjern- fæktiv informationscentre, en kommunikationsnetværk, hvilket øger universitetets kontaktfiler med både by og region
- byen smelter sammen med universitetet
- Trondheim = universitetet.

4. vier universitetet som et verdensuniversitet, helt opløst i det globale sæmfund, ikke en ynnlig bygning eller en fysisk struktur, men et globalt, åbent net af information.

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36: The university of today, Henning Larsen (Facsimile: Henning Larsen Tegnestue, *Universitetet i Trondheim – konkurrenceprojektet 1969–1970*, pages 17–19).

side, there was communication through the new electronic technologies that made information dissemination possible in a much more effective way, and on the other side through communication as an optimized movement pattern within the building complex, making it more open and inviting. Larsen explained in a pedagogical way how the concepts of communication and information had evolved through history, “from the primitive society into the idealized future”.¹⁶¹ The architect claimed that by giving a historic perspective to the project assignment, one also justified the project’s position within history, simultaneously as “the long-term character and optimized openness towards the future needs were preserved”.¹⁶² Larsen also saw communication as tightly interwoven with socio-cultural practices: learning processes in “primitive” cultures were built into social relations. He continued with “more differentiated societies” where learning processes had evolved from conditions of face-to-face into one-face-to-many-faces, something that would give rise to the establishment of the school system and the institutionalized way of learning – the arrival of the schools and consequently the universities, where the medium of the book expanded the teaching capacity. The last expansion of the learning processes would happen with the establishment of digital and electronic communication systems. Through this progress-driven narrative, the architect intended to find a way out of the situation into which the universities had fallen into due to post-war modernization processes:

The modern industrialized society seeks rationality in order to fulfill the needs of an increasing part of the population. The way other institutionalized functions – administrative and economic complexes, large hospitals, “mammoth” sleeping towns, etc. have grown, so also have universities grown into alienating gigantic complexes. Ghettos. Like most of these big functions, the universities are also on the way to be choked partly because of the lack of internal communication and because of the lack of communication with the rest of the society.¹⁶³

The architect made a general analysis of the built universities: they consisted of old, yet updated, modernized buildings, of modern yet generic structures capable of adjusting to immediate needs, and of short-term temporary structures. Additionally, there was one more place where the process of learning happened – in the space of electronic communication, which was independent of university buildings. The architect claimed that university facilities were no longer synonymous with buildings, no matter how flexible they might be, but with the communication means. These had a higher capacity to absorb the

¹⁶¹ Ibid., 15.

¹⁶² Ibid., 15.

¹⁶³ Ibid., 15.

changing conditions in society than any building principles.¹⁶⁴ The architect even talked about TV channels aimed at educational use.¹⁶⁵ Larsen's ideas about the future university engaged with a global scale (36): "The vision about the world university is not about large building complexes. Rather, the world university is understood as a global, overall easily accessible network of knowledge."¹⁶⁶ Here one may read this as an imaginary, which defines university as a communication system, independent of its actual locality, being easily accessible via "infracommunication – the electronic information system consisting of a communication center (radio, TV station) and receptor – receiver station in a mini format placed in every house or a student group".¹⁶⁷

Larsen's proposal took a different stand in its treatment of the urban context than the one suggested by Seth Seablom. Larsen had anticipated that the integration between the city and the new university would eventually happen through infrastructural networks (road systems) as the differences between city and the countryside and between city – housing – university were being erased via a higher level of mobility among people (students and teachers).¹⁶⁸ Infrastructural accessibility would trigger integration between the city and the new university. Social integration was to be accomplished through means of electronic communication – consequently that was why he metaphorically declared that society was now the university. The programmatic integration, however, was nonexistent – the university was seen in terms of modernist zoning strategy, where it was to be its own programmatic zone (in a similar way as there was purely an industrial one, housing one, etc.) even though there were some ideas that "the city would be invaded by the university functions". These could not be traced anywhere in the project – they belonged only to the introductory conceptual framework, without having prescriptive or structural impact later on.

164 Ibid., 17

165 Another aspect important to discuss is how the issue of electronic telecommunication was actually treated. The disposition plan from 1971 also included a separate chapter on this issue where the means of external electronic communication (telex, computer network connections [datasamband] and tv transmissions) were discussed. In terms of phone coverage, it was anticipated that the university would have its own automatic phone operator or be connected to a center to which all the other educational institutions in Trondheim would be connected. Based on the assumption of 10,000 students attending the university in 1990, it was calculated that the university needed 100–150 external telephone lines. The university was to be connected to the public telex network, but only for the librarian use, despite that other institutions within the university would also prefer to have access to the telex network. Either way, the total amount of connections would be small. In terms of the computer network the expectations were a bit higher – the computing service was to be coordinated between several educational institutions in Trondheim through a communication center that was to be established along with new connection channels (either through installing of the new ones or though the renting the existing ones). Tv transmission was primarily anticipated to happen in between the educational institutions in Trondheim, but the exchange of programs with other either Norwegian or foreign universities was possible, something that would demand a connection to the public tv network. These communication assumptions were modest compared to those coming from the architect in his initial statement concerning the future university. What was clear was the fact that a new era was arriving and these issues were becoming a part of the total planning process. *Diposisjonsplan, Universitetet i Trondheim, Utbyggingen av Dragvoll/Stokkan-området* (Statens Bygge- og Eiendomsdirektorat, 1971), 37–38.

166 Henning Larsen Tegnestue, *Universitetet i Trondheim – konkurranseprosjektet 1969–1970* (Copenhagen: Henning Larsen Tegnestue, 1970), 15.

167 Ibid., 19.

168 Ibid., 19.

Seablom's notion of programmatic symbiosis on a micro level was compensated by integration on the macro level within which the new university was to be just one complementary programmatic zone within the larger urban context. Larsen did accept the prerequisites of the competition, which defined the location to be on the outskirts of the city – he and his team were poised to follow the competition constraints. This could be seen as an architectural challenge – how to compensate qualitatively for the fact that the city was so far away and that one could not directly tap into its urbanity. On one side, the countermeasure was the imaginary of technological communication within which the new university would perform independently of its location, something that was futuristic in the late 1960s. On the other side, Larsen suggested the imaginary through which the new university would function as “a framework of social life” (the term used by Larsen). The building with covered streets and three-story blocks performs as an answer to the fact that city was absent – the city was to be simulated through the spatial models that offered the image of traditional urbanity – the glassed-in city with clearly defined streets. What is clear is that Seablom approached the new university as an agent that would transform and improve the city, while Larsen's project was resting on the idea of the university as a product, a city on its own, equal in its size as *Midtbyen* and more or less being equally apologetic due to its apparent small scale.

The Project and the Immediate Context

The relationship between Henning Larsen's proposal for the new university and its immediate context does not appear to be an issue that was specially treated within the project. The empiric material does not contain any discussions on this issue, neither in terms of possible imaginaries, nor in terms of local constraints functioning as modifying factors. The reason for this non-existent issue is the fact that the university was placed at Dragvoll. The site was a tabula rasa, a former agricultural area with no urban qualities. Yet, the Danish team did not find this problematic – the use of former agricultural land was seen as rather exotic.¹⁶⁹ The constraining elements were those given by the small river and the topography of the site. A similar dose of exoticness appears also in the interview, as Troels Troelsen expands on the project's relation to the overall landscape:

We were creating a bridge between two small hills and a valley behind it. The university slopes this way. It is almost one big slope down to the Trondheim fjord. There is the direction towards fjord, the view. It is so nice already from May, you see the sunset colors of the water, because it slopes towards the North.¹⁷⁰

¹⁶⁹ Comment by Hanne Wilhjelm, 02/10/2015, Copenhagen.

¹⁷⁰ Interview with Henning Larsen, Troels Troelsen and Mirza Mujezinović, 05/10/2010, Copenhagen.

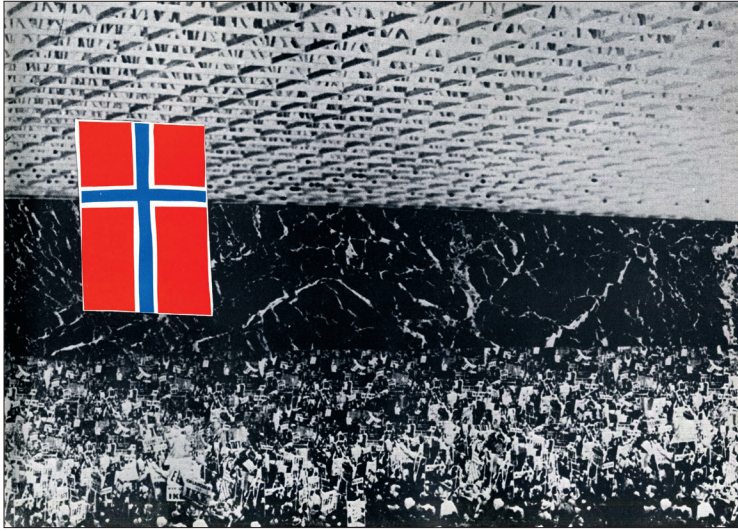
Some of the empiric material, however, shows that there was a reversed influence. In the disposition plan from 1971, the issue of immediate context was encountered exclusively through the perspective of the university project itself – the surrounding areas were to be curated according to the demands and needs of the future university complex, and not vice versa. The disposition plan intentionally customized the surroundings so that they would serve the university project both programmatically and visually. It had implied where residential and service areas would be and how they would be articulated so that they would not affect the future university complex.

The Mode of Organization

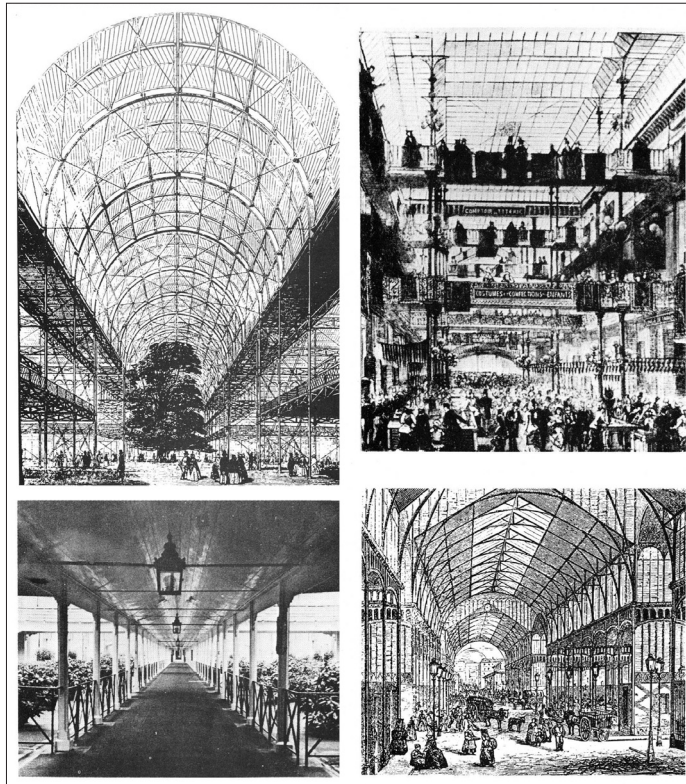
Henning Larsen's initial idea of the university was strongly influenced by a belief in modern communication technology. The process of learning was to be a part of the global information flows. According to the presented discussions, this emerging reality would inevitably lead to transformation and subsequent dematerialization of the university. Yet, Henning Larsen had come up with a proposal, which was anything but dematerialized – a large-scale structure that followed the prerequisites of the competition program. In the architect's view, new technology would make the future university just one out of many nodes within a global network of knowledge exchange – one could clearly hear the echoes of Marshal McLuhan. The university as a static physical depot where knowledge was stored was under scrutiny.

The issue of knowledge dissemination would consequently be approached through the idea of the university as a place of social interaction. The university would be transformed from being a place of learning, a static institution with a formalized hierarchy of professor-student, into a place of dynamic and informal social encounters within which knowledge exchange would take place. Within this conceptual transformation, the idea of social space (corridors, cantinas, plazas) would be reformulated to also include spaces of learning (reading rooms, aula, laboratories). This was a typical change happening within university design in the 1960s: from social space being devoted to specific places within a university complex to the notion of a continuous social space being everywhere within the university. The notion of sociality – the university as a framework for social life,¹⁷¹ was seen as an agent to renew the idea of the university. Subsequently, Henning Larsen's edited version of Mies' 1954 collage depicted precisely that particular ideological attitude: the large-scale glassed-in-roof box was an imaginary representing a socio-spatial framework within which the new university would unfold itself. (37) The celebration of

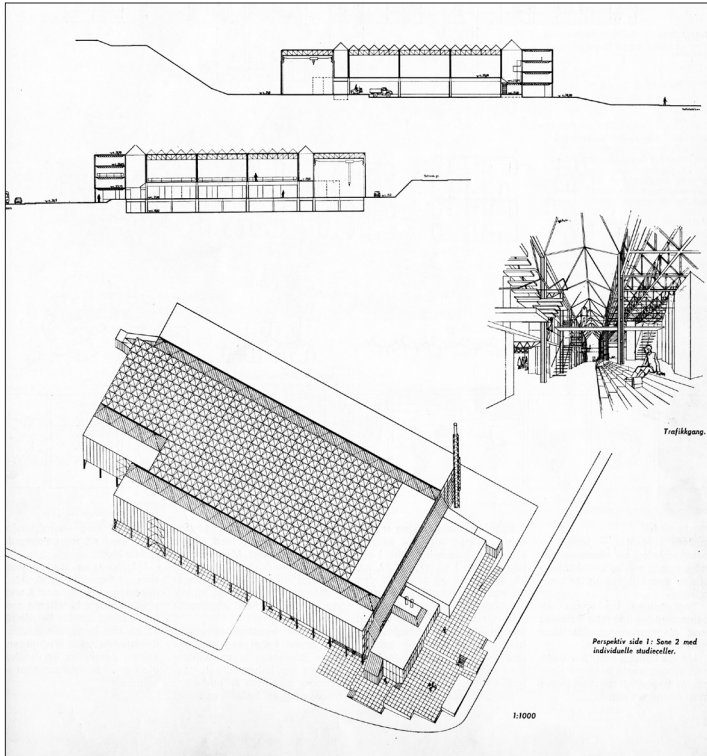
171 Interview Henning Larsen, Troels Troelsen and Mirza Mujezinović, 05/10/2010, Copenhagen.



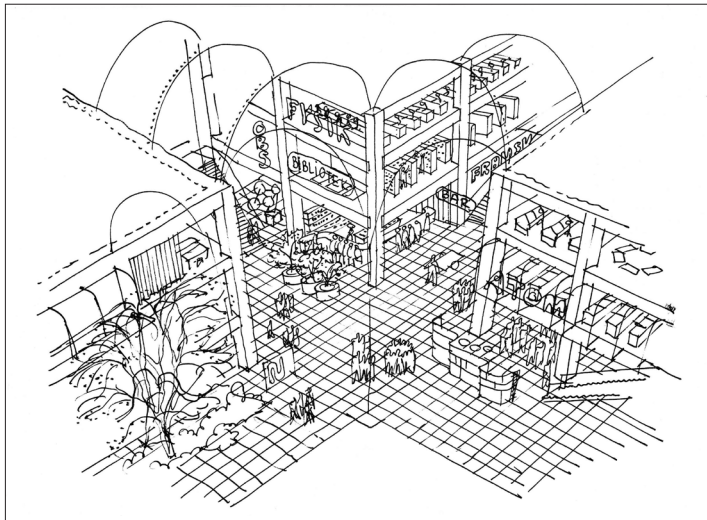
37: The large-scale interior, Mies-collage (Illustration: HLTS).



38: Inspiration imagery (Facsimile: Henning Larsen Tegnestue, *Universitetet i Trondheim – konkurranseprosjektet 1969–1970*, pages 36 and 50).



39: “UFO” – winning proposal for the new architecture school in Trondheim, Per Kartvedt, Eilert Ellefsen, Johannes Gunnarshaug, Kari Stockland and Knut Eirik Dahl (Illustration: Architects).



40: The interior streetscape (Illustration: Henning Larsen/HLTS).

the large-scale interior and its potential sociality was even further accentuated in Larsen's descriptions with reference images of the urban experience of the 19th century department stores and glassed in shopping passages. (38) It should be also noted that, Henning Larsen had implemented similar ideas of the glassed-in large-scale interiors in his competition proposal for the Danish Ministry of Foreign Affairs at Fredriksholm in Copenhagen in 1966 – this competition proposal had suggested covering the whole site, including the old buildings, with the glass roof – the result was an indoor city.¹⁷²

The idea of the large-scale box was a recurring imaginary within the architecture culture of the time. One of the early Norwegian references came in 1967, in the competition for the new architecture school building in Trondheim, where Henning Larsen was also a jury member.¹⁷³ The winning proposal, “UFO” done by a group of architecture students,¹⁷⁴ was based on the idea of the large-scale open box, clearly inspired by Cedric Price's Fun Palace.¹⁷⁵ (39) It was defined by two longitudinal wing structures housing workshops, building halls, photo rooms, administration and staff offices. The central open space, below the glass roof, was given to students – it was to be the future studio space. The young team was on several study trips with its clients, the SBED representatives, in England and the Netherlands, exploring large community halls – undoubtedly enlightening and indoctrinating the SBED bureaucrats, some of whom would also have an important role in the planning of the university project.

The architecture school and the new university did share a common ideological attitude – in both projects, the idea of social space was central. Still, there is a difference when it comes to how this sociality became translated into physical structure in each of the projects. The school was organized around an open space of the big box, while the university was organized around the idea of

172 In the interview, Troels Troelsen says: “Next to Christiansborg there is the canal around the government city of Copenhagen, the new foreign ministry was to be built and on the other side of the canal there were some old buildings. Our proposal was very radical and different from the others; we got a purchase. We made a glass project covering the whole site including the old buildings with balconies, with offices. We made a part of the city as a kind of an indoor city. There were a lot of ideas that were circulating at the time; Frei Otto had some ideas about covering the whole city.” Interview Henning Larsen, Troels Troelsen and Mirza. Mujezinović, 05/10/2010, Copenhagen.

173 Its jury consisted of seven members: the jury leader and architect Bjørn Fjoran, advisor Torbjørn Omholt, the dean and professor Arne Selberg, architecture professor Per Cappelen, architecture professor Arne Korsmo and architect Henning Larsen.

174 The team consisted of Per Kartvedt, Eilert Ellefsen, Johannes Gunnarshaug, Kari Stockland and Knut Eirik Dahl. Per Kartvedt was a teacher; he was responsible for exposing these students to the ideas of the British architecture scene, primarily to the works of Cedric Price and Archigram. The young team had encountered resistance from the old academic staff at Arkitektavdelingen/NTH and the project was eventually cancelled, mainly due to two reasons: the lack of professionalism by the young architects, and due to the fact that the project had lost its main supporter – architecture professor Arne Korsmo had died in 1968. As pointed out by Knud Larsen, Eilert Ellefsen would be one of the first Norwegians hired to work with the university project.

175 Cedric Price himself, due to his good relationship to the architect Per Kartvedt, had advised the young team as the project was developed after the competition. Interview Knut Eirik Dahl and Mirza Mujezinović, 09/06/2011, Oslo.

covered streets. (40) The notion of sociality, as explicated in the revised collage of Mies, was translated into an architectural manifestation, a city streetscape, as shown in the bird's-eye perspective of the intersection of two streets along with the social activity, one of the few images done by Henning Larsen. The street defined by the adjacent volumes and their inherent programs was an attempt to simulate the city – the idea of the city was synonymous with the idea of the collective social experience. This analogy was taken further with three particular diagrams – three plans showing the city of Oxford, the street layout of Dragvoll University project and Trondheim's Midtbyen. (41) These were in the same scale, inscribed in a five-minute pedestrian circle. This was a direct comparison as the size of the building blocks within the new university was comparable to the size of the blocks in the two referenced cities, both in terms of the scale of the horizontal grid and the number of floors (varying from two to three).

Besides suggesting spaces for social encounters, city analogy also provided an ideal for articulation of the large-scale. This was especially apparent in the aerial photo of Oxford center,¹⁷⁶ showing spatial complexity of a traditional city with streets and adjoining buildings, used as a reference in Larsen's competition proposal. (42) Furthermore, in the interview, Knud Larsen explains how this reference would be approached:

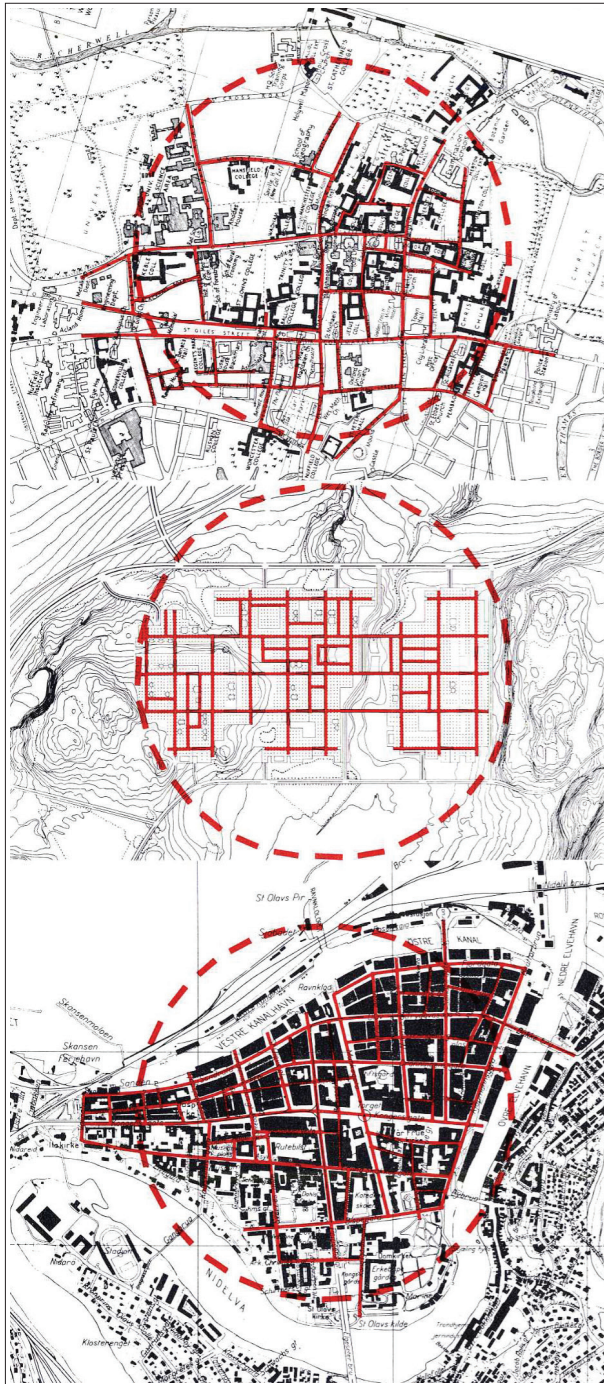
Our dream was Oxford, as we thought that this was an ideal university. It has intimate streets, small plazas, meeting places, a highly varied public life. The primary elements are streets while buildings are secondary. Subsequently, we imagined that one should establish a network of streets, later to place buildings into the city. The city was to unfold along the streets.¹⁷⁷

In addition, as explained in the project book, the spatial variation in the case of Oxford was a result of historical layering, while the spatial variation at Dragvoll was a result of topographical conditions – the site contained cliffs, small hills and a creek due to which the grid structure of the future university city had to be diversified. The project was to function as a compact city, being contextualized towards the landscape itself.¹⁷⁸ The articulation of the large-scale had become something different from the autonomous CIAM megaforms. It was becoming

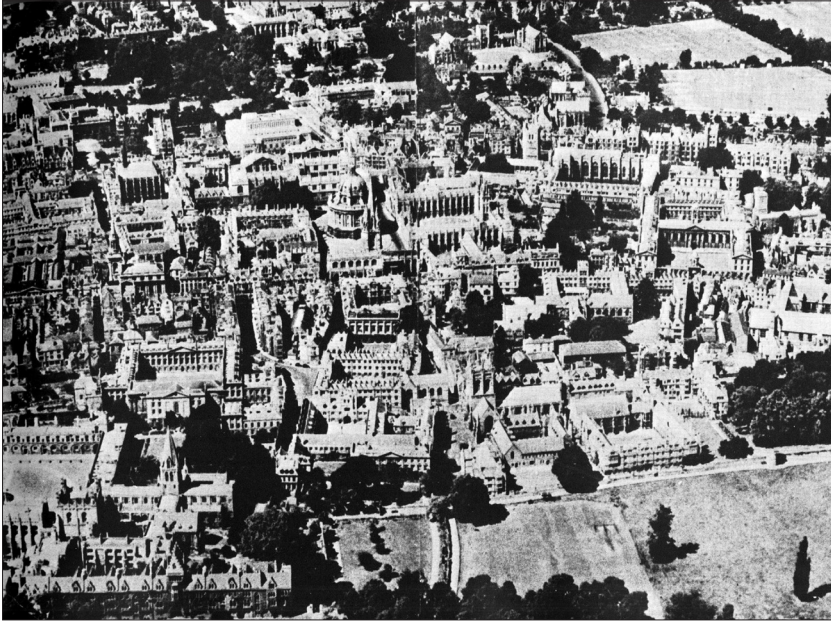
¹⁷⁶ Candilis-Josic-Woods used also the plan of Oxford as a reference image in their competition proposal for Berlin Free University. The year was 1963.

¹⁷⁷ Interview with Knud Larsen and Mirza Mujezinović, 31/08/2009, Oslo.

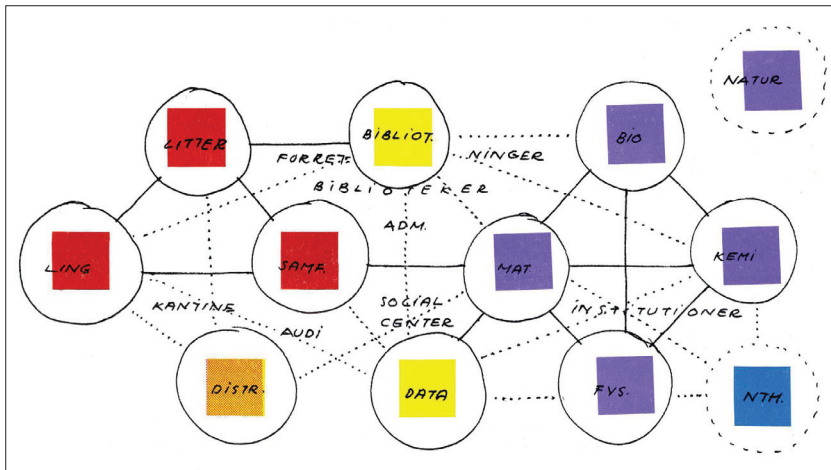
¹⁷⁸ Here, Troels Troelsen emphasizes that such an approach came before what later would be known as contextualism in architecture. Similar to Knud Larsen, he points out that it had to do with the traditional qualities of the cities. In the interview, Troelsen uses term compact city, this must have been a contemporary updated from 2010, as this term does not appear otherwise in the project material. Interview Henning Larsen, Troels Troelsen and Mirza Mujezinović, 05/10/2010, Copenhagen.



41: The five-minute pedestrian circle – top Oxford, middle Dragvoll, bottom Midtbyen Trondheim (Illustration: HLTS).



42: The ideal – Oxford (Image used in the project presentation: HLTS).



43: Organization (Diagram: HLTS).

subjected to another type of conceptual and contextual complexity.

A similar approach was also visible in the project's programmatic disposition. The organizational diagram showed the particular position of the different university departments and their in-between relationships – some were direct (shown with continuous lines) and some were more indirect (shown with dot lines). (43) The new university was to function as a weaved patchwork of relations within which also other functions such as a social center, libraries, shops, a cantina, auditoria and administration offices were introduced. It would become a decentralized programmatic network consisting of several nodes (institutions and facilities) with a capability to complement each other programmatically. In the same way as the university would be a part of a larger global knowledge network, it would also be conceptualized as a network itself – being a network within the network. The city grid was an architectural counterpart to the idea of the university as a network. By having no center, it would be capable of de-monumentalizing the idea of the university, transforming it from an elitist educational institution to an institution for the masses.

The departing point in this analysis was the discussion on the potentialities of communication technology to reformulate the idea of university. Subsequently, the suggested notions of sociality, spatial complexity and programmatic patchwork could be seen as a way out of this discussion as these offered new understandings of the university. Additionally, these may also be read as operative tools to approach the large-scale itself, as these clearly touch upon the overarching mode of organization, mass and program gestalting, as well as offer narratives of how publicness may unfold itself within the large-scale.

The Infrastructural Principles

The city analogy along with its hundred-meter grid with several kilometers of glassed-in streets created the organizational basis for the project. It offered a clear image of the new university, but to what degree did it also provide clear answers to the issues of infrastructure? The project was of considerable size, and as such, it had an *a priori* complexity in terms of how one moved through it and how one articulated parking along with other vehicular movement.¹⁷⁹

As explained earlier, social space would be everywhere since the practice of learning was to be a part of everyday social practices. This was very much in accordance with tendencies visible in the new universities of the late 1960s within which the institutional-architectural notion of community was bent into

¹⁷⁹ The infrastructure principles solving the demands of water, sewage and electricity were also discussed by the architect. I have chosen to leave them out of this analysis as the provided solutions were more or less conventional and did not have any substantial effect on the project.

communication, an encouragement of movement within one-building complex advocating the spontaneous rather than the institutional-formal¹⁸⁰ – an idea that would get its revival in the 1990s with the design of corporate headquarters.¹⁸¹ In Larsen's project, the glassed-in street was the formal answer to this development, yet the question arises how the idea of glassed-in streets when translated managed also to enhance other performances.

Firstly, the glass roof would function as a climatic screen that would protect from rain, snow and wind.¹⁸² The new university would function as a continuous interior, unaffected by outdoor conditions. Secondly, the glassed-in streets would rationalize space demand, making obsolete corridors within each of the blocks, as the auditoriums and other functions on the ground floor would have a direct access from the streets. The upper floors would have their own movement routes that would be vertically knitted to the ground floor streetscape. Thirdly, the glassed-in streets were energy effective, needing no additional heating infrastructure. The energy transmission from the exterior walls of the adjacent volumes would warm up these spaces, as well as the exiting warm ventilation would be redirected back into the glassed-in streets. In the case of over-heating, the glassed-in streets would be ventilated through openings on the glass roof, something integrated in the design of the roof structure. Due to the greenhouse effect and the containment of energy, the glass roof would also help reduce thickness of the walls adjacent to the glassed-in streets, therefore lowering construction cost. (44–47)

Still, the implementation of the glassed-in streets was a challenging issue in terms of fire security and building code. As it was designed, being 8.4 meters wide, continuous, glassed-in and with windows on the adjacent walls, it was against the current fire regulations.¹⁸³ There were some equivalent urban precedents of similar conditions, arcades and galleries from the 19th

180 Stefan Muthesius, *The Postwar University – Utopianist Campus and College*, (New Haven and London, Yale University Press, 2000), 138.

181 This is visible in particular in the project for Telenor Headquarters at Fornebu designed by NBBJ – Peter Pran, Hus Arkitekter and Per Knutsen Arkitektter in 1998.

182 The architect suggested that snow on the glass roofs could effectively be removed as it was usually done at modern airports – by lightweight snow vacuum cleaners. Such an explanation could be read as an act of rhetoric justification within the context of the competition itself. For more, refer to Henning Larsen Tegnestue, *Universitetet i Trondheim – konkurranseprosjektet 1969–1970* (Copenhagen: Henning Larsen Tegnestue, 1970), 50. Hanne Wilhjelm, an architect who was responsible for the articulation of the glass-roof in the period late 1971–1975 could not recall such a “foolish statement”. Rather, she pointed out that the glass roof was changed from an arch into a traditional pitched roof because of a fear for water condensation (dripping) and as such, it could have a potentially negative impact on the environment of the streets. Comment by Hanne Wilhjelm, 02/10/2015, Copenhagen.

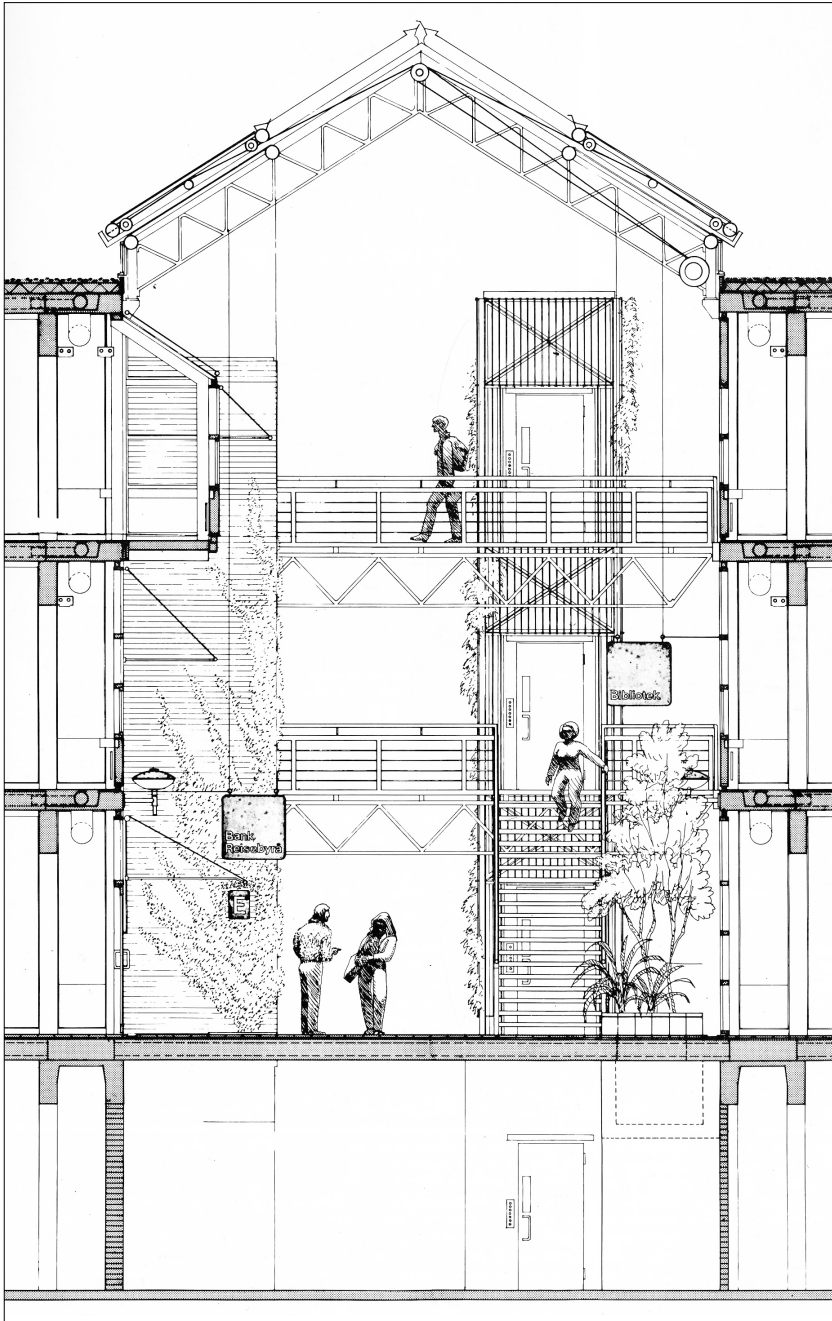
183 Troels Troelsen explains: “It was really difficult, you use distance between two buildings to create a fire safety zone, and then we covered it with glass. We were doing the opposite.” Interview Henning Larsen, Troels Troelsen and Mirza Mujezinović, 05/10/2010, Copenhagen.



44: The glassed-in street, section perspective from the competition (Drawing: HLTS).



45: The glassed-in street, model (Photo: Knud Larsen).



46: The glassed-in street, section after the competition (Drawing: HLTS).



47: The glassed-in street, sun-shading test, model (Photo: Knud Larsen).

century, examples strongly inspiring the project team.¹⁸⁴ The glassed-in street was a type of space that was unknown to the Norwegian setting. In terms of the international context, there were several examples, mostly articulated as large glassed-in open spaces, such as in the case of Sterling's Seeley Historical Library at Faculty of Law/Cambridge University from 1964-68.¹⁸⁵ (48) It should be also noted that simultaneously with the making of Trondheim University, there was another conceptually similar project in progress. It was a continuous 300-meter-long building with a glassed-in street, completed in 1974 at Scarborough College/University of Alberta in Edmonton/Canada, designed by architects A.J. Diamond and Barton Myer.¹⁸⁶ (49)

The breakthrough came because of the enthusiasm by the local Trondheim bureaucrats – the city fire commissioner, engineer Kai Nielsen. He suggested that the glassed-in street should be regarded as a covered outdoor space, and not an indoor space (in which case it would need to be subjected to fire safety codes entailing that no windows towards the street would be allowed while the street itself had to be divided into several fire-proofed zones).¹⁸⁷ By defining it as a covered outdoor space, the glassed-in street was exempted from the fire code regulations since these did not take a stand on issues of outdoor spaces as long as the distance between the adjacent volumes (or fire zones) was minimum eight meters.¹⁸⁸ The commissioner presented the case to the state building authorities in Oslo, and subsequently received their approval. Such juridical creativeness did not exist in Sweden and Denmark.¹⁸⁹ Perhaps this may be the reason why the glassed-in street was extensively used in Norway, as opposed to the other Scandinavian countries.

This simple juridical formulation would have immense importance for

184 Knud Larsen recalls: "We were strongly inspired by glassed-in streets from the 19th century. [During the detail design development] We visited Milan, London and Paris to study these fantastic spaces. Of course, Galleria in Milan is of different scale, but in Paris and London such glassed-in streets function also today. One cannot 'move' Oxford to Trondheim due to climatic constraints, but our idea was Oxford with glassed-in streets." Interview with Knud Larsen and Mirza Mujezinović, 31/08/2009, Oslo. Within this context, one should also mention the 1972 book *Transparenz und Masse: Passagen und Hallen aus Eisen und Glas 1800-1880* by Monica Hennig-Scheffold and Helga Schmidt Thomsen, which offered a highly illustrative and extensive review of the above-mentioned precedents. Troels Troelsen also mentions: "We did read a lot in the books about 19th century shopping arcades. Those were the best references." Interview Henning Larsen, Troels Troelsen and Mirza Mujezinović, 05/10/2010, Copenhagen.

185 As Hanne Wilhjelm comments, during the detailed design phase, Henning Larsen's team visited several projects in England, among others the university library in Cambridge. Wilhjelm makes *lapsus linguae* as she mixes Stirling's building with neighboring Foster's Law Library from the 1990s. Comment by Hanne Wilhjelm, 02/10/2015, Copenhagen.

186 This project does not appear as a reference in any of the empiric material relating to Larsen's project. One may identify conceptual similarities in Reyner Banham's eloquent description: "Compared inevitably to the Galleria in Milan – a rare comparison in megastructure circles – this 800-foot glazed and air-conditioned student street should more properly be compared to *cité-paquebot*, since the rooms and shops can be opened to the interior or exterior climate, whichever seems preferable. The importance of the concept of street life – note the sidewalk café! – to the self-imagery of Academe is underlined by the fact that this radical university building nevertheless follows the existing street grid of the district." Reyner Banham, *Megastructure – Urban Futures of the Recent Past* (New York: Harper & Row Publishers, 1976), 137.

187 Interview Per Knutsen and Mirza Mujezinović, 12/08/2011, Trondheim.

188 Additionally, the glassed-in street had to be ventilated – the roof had to have sections, which were to open in the case of fire so that the smoke would escape.

189 Interview with Per Knutsen and Mirza Mujezinović, 12/08/2011, Trondheim.



48: Seeley Historical Library, James Stirling, 1964–68 (Photo: Brecht-Einzig).



49: Scarborough College in Edmonton, A.J. Diamond and Barton Myer, 1974 (Photo: John Fulker).



50: SAS Headquarters in Solna, Niels Torp (Photo is taken from the book *Niels Torp Arkitekter MNAL*, page 75).

SAPA

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51: Geir Grung's IBM Headquarters in SapaFront ad (Facsimile: *Byggekunst* 2/1987).

this particular project and for future large-scale projects. On one side, it would affect organizational principles and gestalting of buildings; something that was especially visible in the examples appearing in the 1980s, both in Trondheim, from Royal Garden Hotel Complex in Midtbyen to Elektroygget at Gløshaugen, and elsewhere, with Niels Torp's SAS Headquarters in Solna (50) and British Airways at Gatwick. On the other side, this technological and juridical invention would also complement new forms of urban organization where the glass roof would cover the controlled public areas.¹⁹⁰ The glassed-in street became a reality through which the format of a singular building would be changed – buildings could become endless simultaneously as they offered large and open space with enough daylight. These potentially continuous interiors would function as acclimatized environments, making real utopian dreams of the past. In addition, the appearance of the glassed-in interiors helped also foster the high-tech image, where the glazing technology would become one of the main denominators of the architecture's formal and conceptual iconography. (51)

The second issue that is important in the discussion of the grid's capacity to absorb the infrastructural demands is that of vehicular traffic. There is a clear difference between how the accessing external infrastructure functioned compared to the solutions implemented in the treatment of interior vehicular traffic and parking. In the reworked proposal, as illustrated in the disposition plan, the university project had taken a clear position in relation to how the road infrastructure should perform both around the project and within the project. The proposed road layout had encircled the future university. Infrastructure was used as a demarcation line between different zoning areas – between the university and residential areas, between university and recreational areas. The road performed purely as an infrastructural element and not as an element capable of enhancing additional spatial and programmatic conditions.

On the contrary, the road and parking layout within the building was highly enhanced. There were six separate road entrances into the university complex. These would lead to the parking areas, which were placed below the glassed-in pedestrian level (which functioned as the ground level). Larsen had gone against the competition program which assumed that parking should be placed either on the ground outside the university complex or in independent parking houses.¹⁹¹ Rather, the architect pursued the idea of the integration where parking would function as a mediatory zone between the existing landscape and the university complex. The parking used the topography of the landscape – by

190 Karl Otto Ellefsen, "Tendenser i norsk arkitektur 1986, sprekker i den norske enigheten," *Byggekunst* 7, (1986): 10–11.

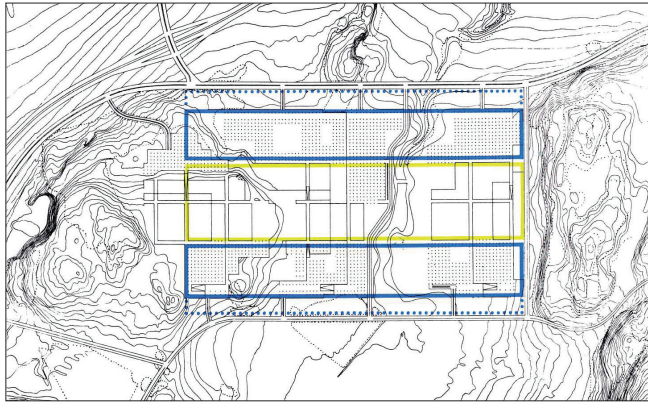
191 The architect found such suggestions unsatisfactory: parking on the ground would eat up large portions of the nature site; if placed on the periphery it would limit future developments; and if placed in between buildings it would make pedestrian connections between different university functions longer.

filling the periphery zones of 100 meters on the north and the south sides with the parking areas, the architect managed to produce a flat surface onto which the university complex would be placed. (52–53) This would also limit the maximum distance from parking to workspace to 150 meters. Such a solution was also economically more viable since it did not presuppose any additional cost in terms of digging, and it could play along with the university’s expansion plans: these parking areas could function as open-air parking spaces in earlier development stages and later be covered with university edifices. Additionally, the architect’s intention with topographic integration would also solve issues of ventilation as well as bring daylight. Each parking compartments had a capacity of 350–400 cars. (54–55) These compartments were not connected to each other – they were only accessible from the outside. By compartmentalizing the parking, the university functioned as a building complex consisting of six independent entities – each of the parking compartments along with its independent access road belonged to the university institution above. The network of internal service and public transport roads, however, *glued* back the complex into one whole – being an infrastructural skeleton of the complex. Such an approach reflects an understanding of interdependency between vehicular infrastructure and gradual development, an issue of importance in the articulation of the large-scale.

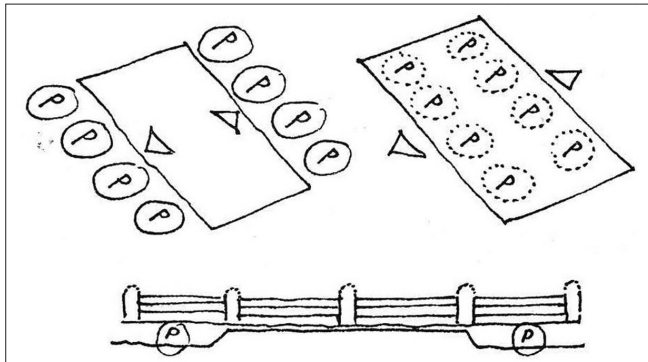
The analysis of infrastructural matters shows that the idea of the 100-meter-grid and the analogy to the idea of the city was functioning well in solving the complexity of the large-scale. The project’s infrastructural layer was articulated as a set of vertically distributed communication networks. Vehicular traffic was on the basement floor; the main pedestrian streets on the ground floor; and more private interior connections within different institutes on the higher levels. It was through the infrastructural layer that the new university would function as one continuous building – the three infrastructural communication networks effectively would connect and subsequently amalgamate different parts of the university complex into one continuous building complex.¹⁹² (56–57)

What comes also forward is that the architect had designed infrastructure implicitly to serve architecture. On one side, the pedestrian movement through the university complex was designed through a system of streets and secondary pathways on the second level, offering well-articulated spatial sequences. It was nothing more than the diagrammatic corridor system seen in numerous other universities of the time. In addition, parking was placed in the in-between spaces between the landscape and the building, with direct spatial

¹⁹² Stairs and hydraulic elevators connected the street and the secondary pathways on the upper levels. Knud Larsen explains how the intentional practicality choreographed the vertical movement: “The hydraulic elevators were meant to be mainly used by disabled people. The elevators moved slowly and other users would therefore prefer stairs.” Interview with Knud Larsen and Mirza Mujezinović, 31/08/2009, Oslo.



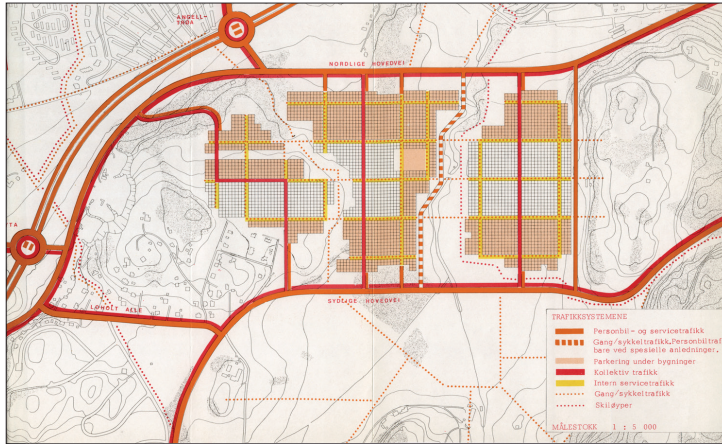
52: Zones with elevated buildings (with parking below) and buildings on the terrain (no parking) (Diagram: HLTS).



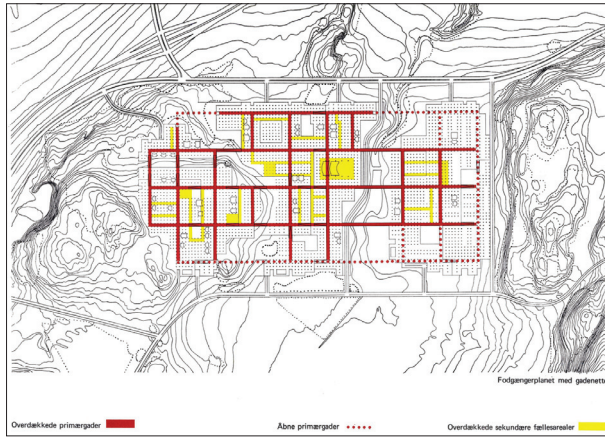
53: Parking in the landscape (Diagram: HLTS).



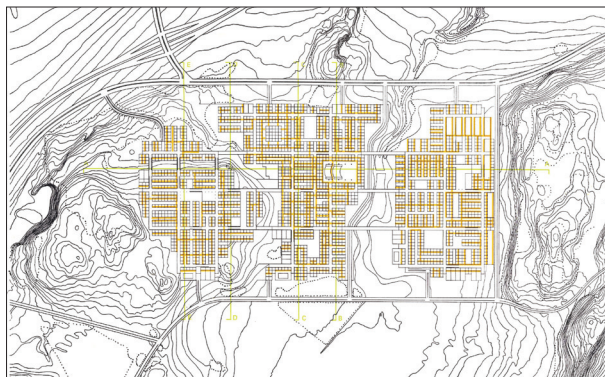
54: Roads/car access, service routes and installations (Diagram: HLTS).



55: Traffic systems (Drawing: Disposition Plan, page 12, HLTS).



56: Pedestrian streetscape (Diagram: HLTS).



57: Passages on the upper floors (Diagram: HLTS).

connotations. Additionally, related to this discussion comes also the architect's economic rationale, something that testifies to a new awareness. The architect used an argument relating to economy to legitimize the presence of glassed-in streets, as well as the necessity to integrate parking within the building complex. Finally, solving infrastructure within such a large-scale project was approached as an architectural endeavor. It is through the design of a general system, and not a finished designed layout, that the architect structured how this project would function. The idea of infrastructure was hereby taken to another, a more active and articulated, level.

Struktur/Structure

Larsen legitimized the design for the new university through quantitative and qualitative analyses of several external conditions, those of soil, topography and views. Subsequently, these analyses resulted in a three-dimensional zone defining the envelope within which the university was to be "packed in". In the architect's view, the final "packing in" was a result of numerous integral considerations in relation to space-function dialectic, structural issues, ventilation, daylight, material choices, etc. The zone was synonymous to a system offering multiple spatial scenarios. This was accentuated through a series of eight axonometric diagrams. These clearly depicted the idea of the zone as a system, which would be capable of absorbing programmatic and infrastructural complexities within the economy of the landscape.

Such a non-formal approach was different from the one used in the earlier Larsen's university projects, for example the winning proposal in Stockholm University competition at Frescati in 1961 (58) and the second prize proposal in the Berlin Free University in 1963 (59). The Stockholm project was organized around a central plateau as one large monumental building. The second prize project for the Free University in Berlin used an outdoor central strip as an organizer of the building complex while moving into the direction of a mat structure. There was a clear tendency that the level of monumentality in the projects was decreasing, from the oversized and *compositional* singular building in Stockholm to Trondheim's *non-formal* mat structure conceptualized around the idea of the system.

As touched upon earlier, these tendencies could be explained through changes in the architecture culture of the time. The above-mentioned new generation of young architects, Troels Troelsen, Nils Roloff and Knud Larsen, influenced by TEAM X, especially as explicated through Candilis-Josic-Woods' Berlin Free University project (project made in 1963, completion in

1973), would start playing an important role in Henning Larsen's office.¹⁹³ In that sense, Larsen's project for the new university at Dragvoll is an exponent of a structuralist design approach. Central to this approach is that the built environment is thought of by means of its smallest cell and that through combinatory principles, specific relations between the smallest entities were established in order to create a wider urban and architectural realm.¹⁹⁴ (60) As such, structuralist ideology may be seen as a way to enhance large-scale building assignments, as it was able to offer operative approaches to varying scales.

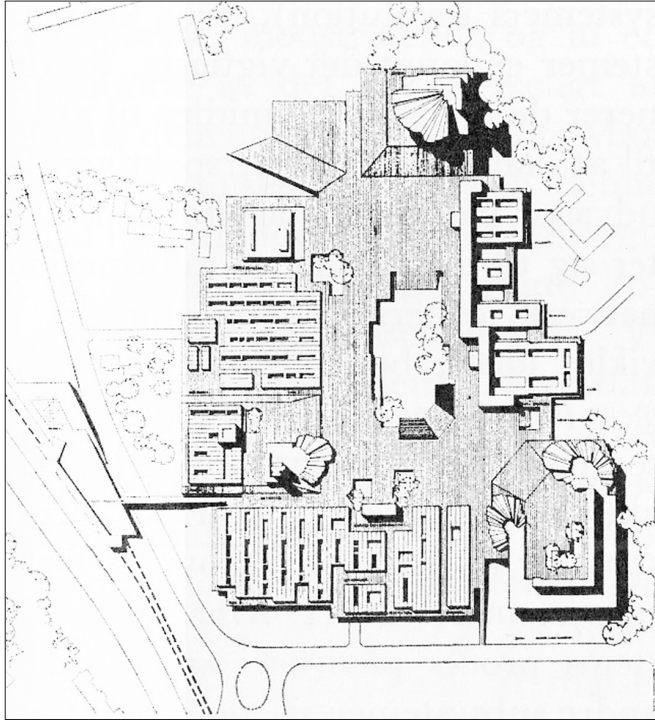
This is especially visible in the polyvalent articulation of building blocks within the university. The elementary particle within the block, and the project at large, was a three-dimensional module with dimensions of 8.4 x 8.4 x 4.2 meters. It was to be multiplied and joined in a city block configuration having the maximum envelope of 11 x 11 x 3 modules (approximately being 100 x 100 x 12 meters). Such an envelope was tailored both to absorb the demands of the vehicular traffic on the underground level as well as it would be able to offer multiple spatial dispositions for different programmatic scenarios on the upper floors, such as laboratories, a library and offices.

The potentials were illustrated through a series of eight configurations. (61) These were placed in the same topographic context where the block's backside (an area of four modular rows along one of the block sides) was to be 4.2 meters higher – the block was to absorb the sloping terrain equivalent to the height of one floor. The parameters were those showing the density, daylight conditions, and usability.¹⁹⁵ Such multiplicity of parameters created an image of the project as a dynamic building environment, again having a clear reference to the city analogy. The eight selected configurations were indexed in accordance to the above-mentioned parameters, as if they were a scientific finding, varying from FAR being 1.3 to FAR being 2.0, from low uniform organization to highly divided and randomized, yet all of them had all five light conditions. The approach showed that the endless combinations were possible: The architect had formulated an open system, which could absorb any kind of future.

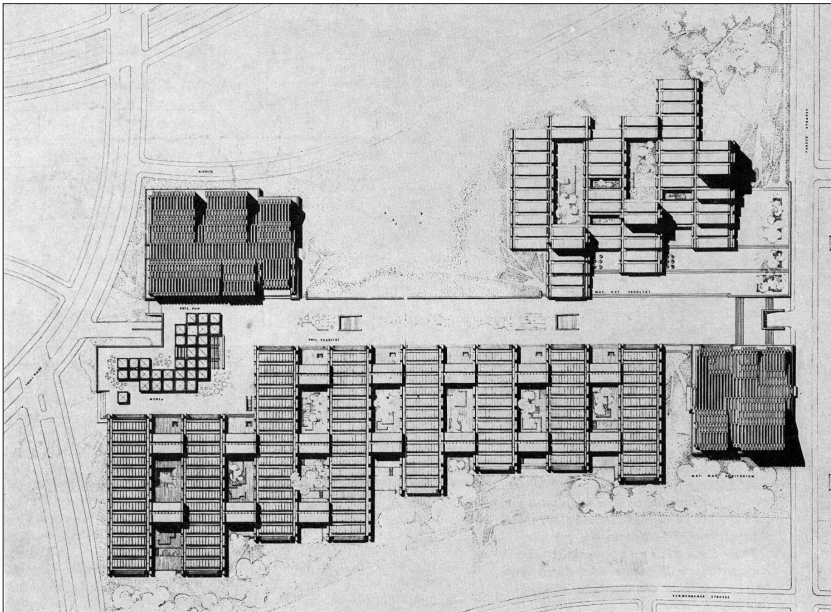
193 Knud Larsen refers to Candilis-Josic-Wood's project as one of the most important references. Interview with Knud Larsen and Mirza Mujezinović, 31/08/2009, Oslo. Troels Troelsen refers also this particular project. Interview with Henning Larsen, Troels Troelsen and Mirza Mujezinović, 05/10/2010, Copenhagen.

194 Avermaete Tom, "Designing for the Anonymous Collective – The Architectural Culture of the 1960s," *Nordic Journal of Architecture*, No.1 Volume 2 (2012): 50.

195 In terms of daylight conditions the architect had identified five different areas: (a) the areas with the side light whose inclination angle was less than 27 degrees giving the possibility for the general working spaces (for example office space) and communication space; (b) the areas with the side light whose inclination angle was between 27 and 45 degrees giving the possibility for a more labor intensive working spaces (for example laboratories) and communication space; (c) the side light with the inclination angle larger than 45 degrees giving possibility for the communication space; (d) the areas with no daylight and (e) the areas with roof over-light. Henning Larsen Tegnestue, *Universitetet i Trondheim – konkurranseprosjektet 1969–1970* (Copenhagen: Henning Larsen Tegnestue, 1970), 26–31.



58: Stockholm University at Frescati, Henning Larsen TS, 1961.



59: Berlin Free University, Henning Larsen TS, 1963.

According to Larsen, a desired block setup could be found through a cybernetic model following those predefined criteria – a computer would analyze different configurations and consequently suggest the most relevant ones. One instance where the architect had taken a position in terms of a certain programmatic specificity within the block was in a general-specific division of spaces being projected vertically onto the university structure. The general spaces – those to be used by everyone at the university – the auditoriums, reading rooms – were to be placed on the lower levels within the structure and were to be organized according to criteria of centrality, accessibility and openness. The specific spaces – those to be used by specific groups – the research laboratories and study cells – were to be placed on the upper levels and organized according to criteria of decentralization, closeness and quietness. Such an organization shows a hierarchical differentiation of privacy, where the upper floors were more private belonging to the specific groups while the ground floor belonged to the public and as such, it was further strengthened through the presence of the adjacent glassed-in streets.

As mentioned, there is a clear ideological lineage between the project for Berlin Free University by Candilis-Josic-Woods from 1963 and Larsen's university project at Dragvoll.¹⁹⁶ Both projects draw from the city-analogy, as well as they relate to the notion of mat-building. The city-analogy is an attempt to initiate urban tissue of a new environment in a context that originally lacked it: Berlin Free University was placed in the suburban district of Dahlem, while Trondheim University was at the former agrarian area of Dragvoll. The notion of mat-building relates to the capacity to offer at the same time an overarching rigid order and a weave of diverse entities at different levels of scale.¹⁹⁷ Despite the ideological similarities (and direct referencing), there is a difference in the articulation of the mat-building theme. Berlin Free University is conceptualized as a *web*, a term used by the architects, where *web* is constituted through the mesh of *tracés* and *open spaces* into which programmatic elements may be woven, the metaphor of the web refers to another property of the traditional European density.¹⁹⁸ (63)

Larsen's university project is conceptualized as a three-story city grid with glassed-in streets, where each block may have numerous articulations depending on the programmatic demand. Berlin Free University is a low-

196 Here, I use Berlin Free University in order to situate Larsen's university project within the context of architecture culture. This particular project is commonly regarded as one of the most influential university projects of the 1960s; it is an example of structuralist approach, and it is used as a prime case of mat-building in Alison Smithson's article "How to Recognise and Read MAT-BUILDING: Mainstream Architecture as it Developed Towards the *Mat*-Building?," *Architectural Design*, 9 (1974), 573–590.

197 Alison Smithson, "How to Recognise and Read MAT-BUILDING: Mainstream Architecture as it Developed Towards the *Mat*-Building?," *Architectural Design*, 9 (1974), 573–590.

198 Tom Avermaete, *Another Modern, the Post-war Architecture and Urbanism of Candilis-Josic-Woods* (Rotterdam: Nai Publishers, 2005), 319.

rise form having a finite perimeter – a fixed outer shape – with variation and changeability unfolding within it. Trondheim University does not have a finite perimeter as it may continually grow by prolonging its glassed-in streets and adding new blocks: It is an additive structure with potential variation and changeability within each of the blocks. Its eventual final form is anything else than absolute and finite as it draws on the logic of continuous additions and the organic formation of the landscape. As such, it is more flexible to absorb the process of translation and eventual modifying factors.

On the level of city analogy, Larsen's project is more direct as it explicitly translates it to the system of streets and blocks. In terms of Berlin Free University, this analogy ends up being too metaphorical, being too much contained within its own terminology, for example *tracés* refer to the movement and social spaces, equivalent to the traditional streets. When translated and built, these performed more as slightly wider traditional corridors limited to one story height, except at the places of ascending ramps. Larsen's university project articulates more directly the spatiality of the city: it offers a higher degree of spatial variation, yet it treats continual development in a much more flexible way. As such, it expresses the structuralist ideology more profoundly, simultaneously as it leaves a higher degree of openness towards future scenarios balancing on a fine line between interdependency and totality. Therefore, this project has a high relevance in terms of how the large-scale was to be approached, and subsequently moves architecture into the direction of urbanism.

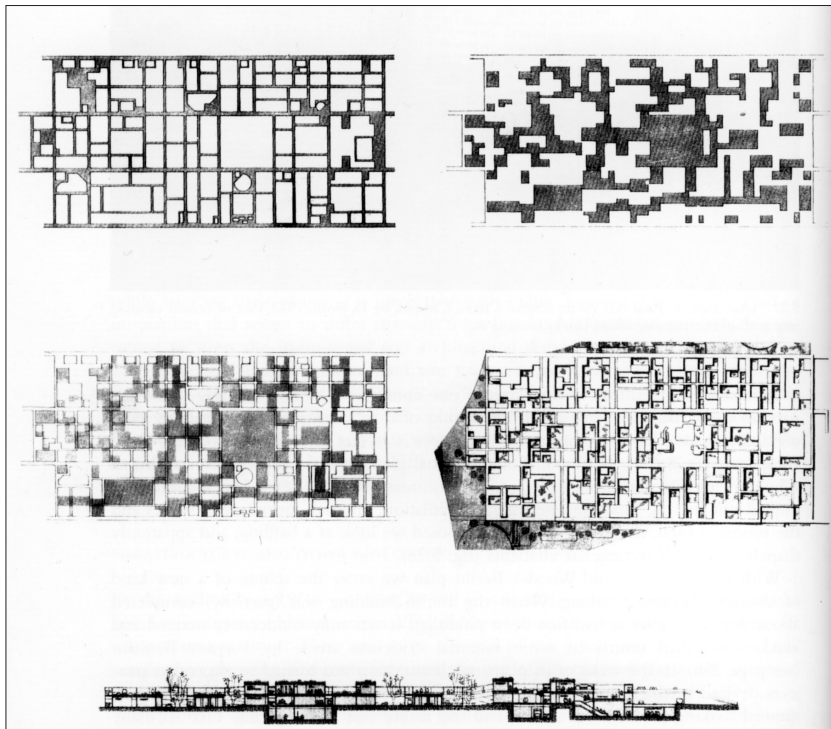
Another level where the structuralist ideology seemed to provide an operative approach was that of construction system. If the system of blocks had made programmatic and developmental flexibility possible, the question is to what degree the same type of openness was provided within the constructive solutions. Larsen emphasized in his project description that the building system of the project was simple, industrial and prefabricated, having few basic components that could be easily modified according to the specific needs. It was to be modular, consisting of concrete structure, lightweight sandwich façades and walls, as well as the hidden channeling and installation parts. This was in accordance with the prerequisites of the competition aims as this particular project was to be a pilot project for the emerging building industry.

A year before the launch of the competition, SBED published a report on the industrialized building methods for the universities, for the purpose of the coming university development in Trondheim.¹⁹⁹ (64) This report was also an appendix to the competition brief. Interestingly enough, emphasis was given to German examples: Developments for the new universities in Stuttgart,

¹⁹⁹ Utredningsutvalget for byggemåte ved universitetsutbyggingen i Trondheim, *Industrialisert bygging for universiteter og høyskoler* (Oslo: Statens bygge- og eiendomsdirektoratet, 1967).



62: Top view model (Image: HLTS).



63: Berlin Free University, Candilis, Josic and Woods; and Schiedhelm, competition desing 1963. Plans: top left: pedestrian network; top right open spaces; bottom left: open spaces and pedestrian network superimposed; bottom right: 'aerial view of built form', longitudinal section (*Architectural Association Journal* vol. 80 no. 883 1-1965, pp. 14-17; *AA* 1967).

Bochum and Marburg were key examples as they already came far in the implementation process. In addition, Henning Larsen's project for Stockholm University was mentioned. On one side, this particular report could be seen as a structuralist ABC book, as it revolves around the very idea of a building system as articulated through several intertwining scales and their subsequent modulations. On the other, it clearly illustrates how the university project was a part of the overall state modernization project: the final part of the report deals with the economic rationale and overarching societal consequences of such a large building endeavor.

The question that opens up is to what degree Larsen's winning proposal had been influenced by the report itself. One thing is clear, the architect was eager to show that the project's architecture was optimal for modular building production.²⁰⁰ As such, the winning proposal is fully in accordance to the content of the report. Yet at some instances, it provides solutions that were not shown in the report. Perhaps, the most articulate solution was that of columns: these were four-point column bundles having an outer horizontal envelope of 1.2 x 1.2 meters.²⁰¹ They consisted of four smaller columns joined with concrete plates – these columns (bundles) would create a stiff structural framework, which would not need any additional lateral stabilizers. The column bundle was optimized to integrate vertical installations having a free space of 75 x 75 cm within it. The concrete double beams spanned in-between the column bundles with whom they were joined in an intricate system of carvings.²⁰² (65)

The structural setup was also optimal in the case of expansions as the concrete beam bundles had the pre-made carvings into which the future beams could be easily be placed. Such solutions witness that the issue of construction was treated as an architectural endeavor: A seamless integration of structural elements with infrastructural piping was a questing of architectural articulation. The architect was designing the structural system together with infrastructural necessities, yet being aware of the emerging industrialized reality. The production method was also important – Larsen was aware of the aesthetic and technical consequences related to the pre-fabrication process, for example, he suggested that the columns be casted horizontally – the column's outer

200 The project was to be a pilot project for the modern building industry in Norway. In Henning Larsen's view, the building system applied in this project was so general in terms of its character, weight and size that the needed technological infrastructure (transportation, assembling and production) could be immediately reused in other building projects, for example, the prefabricated slabs could be used for housing projects.

201 Such a structural solution came from a newly built laboratory building in England. Comment by Hanne Wilhjelm, 02/10/2015, Copenhagen. There is no mention of this reference in Larsen's project book. In my research, I have come across Arup Associates' project for Metallurgy Building at Birmingham University where a similar four-point column was applied.

202 The space in between the two parallel beams was to serve as a horizontal infrastructural service channel, which would be covered with removable concrete plates. The beams were also designed with openings allowing the lateral passage of the infrastructural channels.



ofte være konstruksjonså tegne los et passende grovt sett n-12M på planen. Referansesettet styrer plassering av en midde andre hjelpesett.

Konstruksjonssett (primærsett) — n-12M (hvor n er et positivt, helt tall 1, 2, 3, ...) — et kontinuerlig planmodulsett av kvadratiske ruter som styrer byggets konstruksjon, underfordelinger m. m. Konstruksjonssettet kan plasseres på og gøres identisk med referansesettet, men kan også plasseres til forskjell i forhold til dette. For visse bygningstypiske komponentgrupper kan det innføres konstruksjonssettet opereres med underordnede, kvadratiske eller rektangulære hjelpesett.



Fig. 23
Konstruksjonssett 12M (primærsett) underordnet av planlansingsnett (sekundærsett) 3M.



Fig. 24
Forkjøpning av et konstruksjonssett i forhold til referansesett.

Planlansingsnett (sekundærsett) — 3M — er en underdeling av konstruksjonssettet og styrer plassering av ikke bærende deler, romsgrensninger m. m. For visse komponentgrupper kan det opereres med underordnede kvadratiske eller rektangulære modulsett, liggende på eller 3M/2 forkjøvet i forhold til 3M-nettet 1m. Eksempel på slike sett er innstikkingsnett.

Vertikalmodul 3M — 3M — gir for universitetsbygging preferanse til etasjehøyde 30, 33 og 36M. Disse etasjehøyder kan også begrunnes funksjonelt.

28

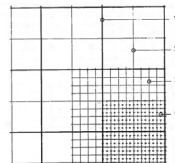


Fig. 25
1. Referansesett, eksempel 21M.
2. Konstruksjonssett 12M.
3. Planlansingsnett 3M.
4. Innstikkingsnett 1M, forkjøset 3M/2 i forhold til planlansingsnett.

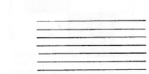


Fig. 26
Vertikalmodul 3M

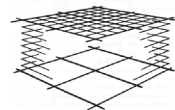
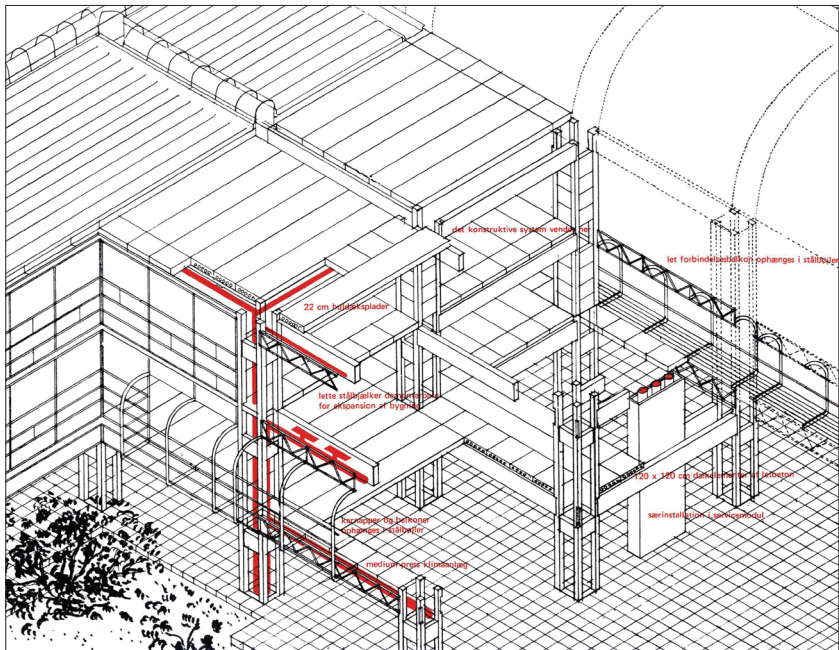


Fig. 27
Samletter (KBS rapport nr. 12)

64: Industrialisert bygging for universiteter og høgschooler, Utredningsutvalget for byggemåte ved universitetsutbygging i Trondheim, 1967 (Facsimile: Cover and page 28).



65: Structural systems (Diagram: HLTS).



66: University as-built, entrance, 1979 (Photo: Kings Foto).



67: University as-built, the street, 1979 (Photo: Kings Foto).

façade was to be casted in formworks and subsequently it would have a smooth concrete surface.²⁰³

The project extensively explored the potentiality that was within the *Struktur* imaginary, not only on the organizational and structural level, but also on the iconographic and aesthetic level. (66–67 & 73–74) The system approach had yielded a structure which was introvert and anonymous while being easily readable. The building complex was to be seen as a whole characterized by its modular layout: The system itself was used as a formal motif.²⁰⁴ The notion of structuralism should be read as an operative approach to the issue of large-scale, precisely as it was applicable both on the smaller scale, in terms of the industrialized construction methods, and on a bigger scale where it provided a framework for mass, and program distribution, as well as it offered solutions to infrastructure. The imaginary of system was translated almost unequivocally: it had effectively managed to absorb modifying factors. Perhaps, it has to do with the fact that the project itself was an open system with a clear spatial grammar. As such, its final physical form, “an absolute grand shape”, was not an imperative, rather flexibility and operability to absorb building mass; program and infrastructure gave the contours of the project. Not to claim that the aesthetic was unimportant, on the contrary there was a precise and delicate articulation of the project’s materiality and structural solutions, as explained in the case of column bundles.

Developmental possibilities

The gradual development of the new university was thoroughly addressed in the municipal book *Disposisjonsplan 1971 – Universitetet i Trondheim – Utbyggingen av Dragvoll/Stokkan-området* – a document which was used as a departure for the rezoning immediately after the competition was finalized in 1971. The university was to be developed in stages where the first stage of 45,000 m² would be completed by 1976.²⁰⁵ The schedule in terms of time and implementation volume was dependent on budget grants from the national parliament. The disposition plan suggested a continuous building expansion with around 12,000 m² to 15,000 m² built per year area, so that the estimate of

203 In the 1980s, the second stage of the development was launched. This time the architect was Per Knutsen, the former project architect working for Henning Larsen, now having his own architecture practice. It is interesting to note that the same firm that delivered concrete elements in the first stage also won the tender in the second stage. The main reason was the fact that this firm had kept the original formwork, making the production costs much lower. Interview Per Knutsen, and Mirza Mujezinović, 12/08/2011, Trondheim.

204 Knud Larsen interestingly remarks: “The project was not so much of his style. Henning Larsen was much more monumental and he did not work with general systems. He did work once with systems, in 1964, in Poul Henningsen’s competition, when he designed a dense carpet structure. [This competition was won by Knud Rasmussen and Seth Seablom] Dragvoll takes a secondary position in his opus, as I see it. I am not sure if Henning wanted to distance himself from it. He did not like the detailing. For example, we introduced a considerable amount of brickwork. That is not ‘him’ as it was so concrete and tactile. He has almost never used a visible brickwork, everything was to be white. Take a look at Copenhagen Business School.” Interview with Knud Larsen and Mirza Mujezinović, 31/08/2009, Oslo.

205 The first building stage contained 25,000 m² and was completed in 1979.

10,000 students and 2,000 employees would be met by 1990.²⁰⁶

The question that arises is how the new university, as formulated in Larsen's project, could manage to absorb such a development pace while being in function during the construction period. The answer lies in the fact that the project itself was formulated as a miniature city consisting of streets and independent blocks. As such, it was fragmented into manageable parts that could be gradually developed where each new development phase would not condition (or make dysfunctional) the already built portions of the new university. There was a high degree of openness and interdependency within the project layout. The block setup facilitated numerous possibilities, all of which were to be compartmentalized through the format of a one hundred by one hundred meter lot – a format capable of absorbing both different futures and different speeds with which these futures were to arrive. The expansion scenarios were to be sequenced through a number of developing blocks. In that sense, the project had inhibited the fourth dimension – that of time, through which the idea of the university development as one singular large-scale building was deconstructed into a university as a building complex – *building* being both a noun and a gerund.²⁰⁷ If the glassed-in street had opened up a possibility of a building that could be endless, the format of the block would sequence this endlessness into buildable entities.

Such an open approach was not visible in any other of the five competition finalists – three equal runner-ups and two purchases. The first runner-up project by Arkitekt Mogens Breyens Tegnestue was based on a horizontal continuous north-south building structure having two main infrastructural axes crossing each other. (68) The project itself was one uniform, according to jury monotonous, megastructure perforated with occasional atriums. The second runner-up project by Arkitektfirma Poul Kjærgaard was the most compact proposal, in which the campus was divided into two main mass agglomerations, one larger and one smaller. (69) The main organization principle was a continuous plinth of two-three levels following the topography of the landscape, having several ten-story lamellas above. This project offered very little potential for gradual development: the plinth itself seemed too unbroken and deep, difficult to be fragmented in smaller entities despite possible localities given by the lamellas. The third runner-up project by Lars Due was also a continuous horizontal megastructure with repetitive atriums. (70) This project seemed as a conceptual mixture of Henning Larsen's two previous university projects, Berlin Free University and Stockholm University.

²⁰⁶ It is interesting to note that such building mass per stage was also applied in the large-scale projects of the 1980s and 1990s, for example in Aker Brygge development.

²⁰⁷ This relates to static and dynamic characteristics of the large-scale. On one side, the large-scale as a house/edifice equivalent to the noun *a building*. On the other, the large-scale as something in the lasting process of construction, equivalent to the gerund verb *building*.

It combined repetitive three-four-story continuous lamellas with an open plaza in the very middle of the university complex. The first purchase project by Carl Nyrèn Arkitektkontor AB consisted of several repetitive north-south oriented lamellas joined at the basement level. (71) The second purchase project by architects Torben Nicolaisen and Ib Flemming Braarup was divided in approximately two equal mass agglomerations. (72) These were similarly articulated being organized around the system of interconnected lamellas. This project almost caricatures the emerging mobility, as it turns almost the whole of the remaining unbuilt area into the meandering outdoor parking.

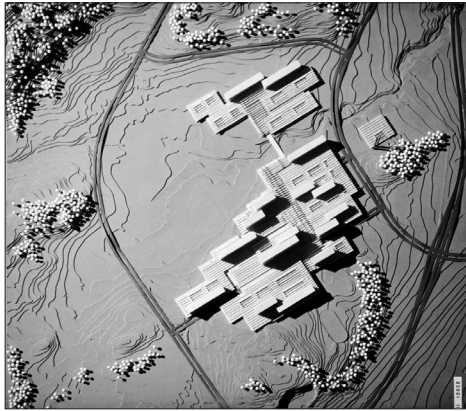
What all of the five projects have in common is their lack of openness and variation: these projects were either formulated as fixed grand forms - uniform and monotonous megastructures or as agglomeration of numerous repetitive entities such as lamellas. Conversely, Larsen's city analogy seemed operational as it was translated into a project which was fragmented yet interdependent, and varied yet highly structured: it consisted of blocks, where each block could have different formal and programmatic capacity. Still, it is the glassed-in streets that gave the decisive twist in terms of its phasing intelligence: the glassed-in streets could be seen as an adjoining interface, as well as a demarcation line in-between two building stages. The surrounding distance of 8.4 meters towards adjacent blocks secured that the implemented block would get its outer envelope completed (subsequently providing pedestrian access and necessary daylight input). Each part could be finalized on its own while being part of the whole. This openness within the project was transplanted into several other discussions, for example on structural systems. As described earlier, the architect had developed structural solutions, which were modular and could be industrially pre-produced while being optimized to absorb future extensions. Larsen suggested also that the structural system could be further modified so that it followed the development of building technology. The extent of each of the developmental stages was to define the logic of the structural system itself. Larsen discussed that in the case of the increased development pace, one could deploy different types of structural systems, for example halls with larger spans offering a freer space disposition similar to the large-scale structures with free plans - in a way going back to the initial Mies' 1954 collage and the large-scale social box.

Larsen doubted in the realism within the project itself – the fact that such a big development was to take place on such a remote site.²⁰⁸ Still, this project was highly elaborated and developed to counterbalance such a situation. It was clear that the project was to be built in stages, but it went further in articulating

208 Interview Henning Larsen, Troels Troelsen and Mirza Mujezinović, 05/10/2010, Copenhagen.



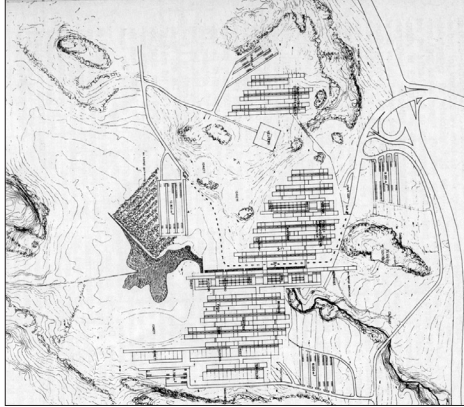
68: Runner-up, Mogens Breyens.



69: Runner-up, Poul Kjærgaard.



70: Runner-up, Lars Due.



71: Purchase, Carl Nyrèn.



72: Purchase, Torben Nicolaisen & Ib Braarup.

this modifying factor. Larsen proposed a much more open developmental framework yet within a stringent set of rules and subsequent structural definitions, anything besides than the university megastructures of the period. This project was a system of blocks and glassed-in streets, not conditioned by the necessity and absoluteness of its final form. It was to grow block by block while expanding its streetscape. As such, it suggests another type of approach where the time dimension was embedded within the structural logic of the overall plan, creating an interplay between the totality and its interdependent fragments. It signals a new sensibility in treating the issue of the large-scale. Within this context, the large-scale is something other than just big and oversized buildings, but a building logic that intrinsically combines the notion of gradual development with the necessity of immediate performance of the building. As such, this project goes beyond being merely a direct translation of the structuralist approach and a morphological version within the typology of university projects unfolding throughout Western Europe at the time.

S U M M A R I Z I N G R E M A R K S

In this chapter, I have explored the making of Henning Larsen's project. In its introductory part, I reviewed the socio-political and cultural context in Norway and Trondheim during the 1960s. Through the six thematic reviews, I have examined translation of ideas, ideals and imaginaries unfolding at different levels of Henning Larsen's university project. Here, I analyzed and dissected the architect's intentions and how these intentions were turned into the material reality of the project. In the following summarizing remarks, I will reflect on the conducted analysis by touching upon the capacity of the chosen perspectives: what has been unveiled through them and what not.

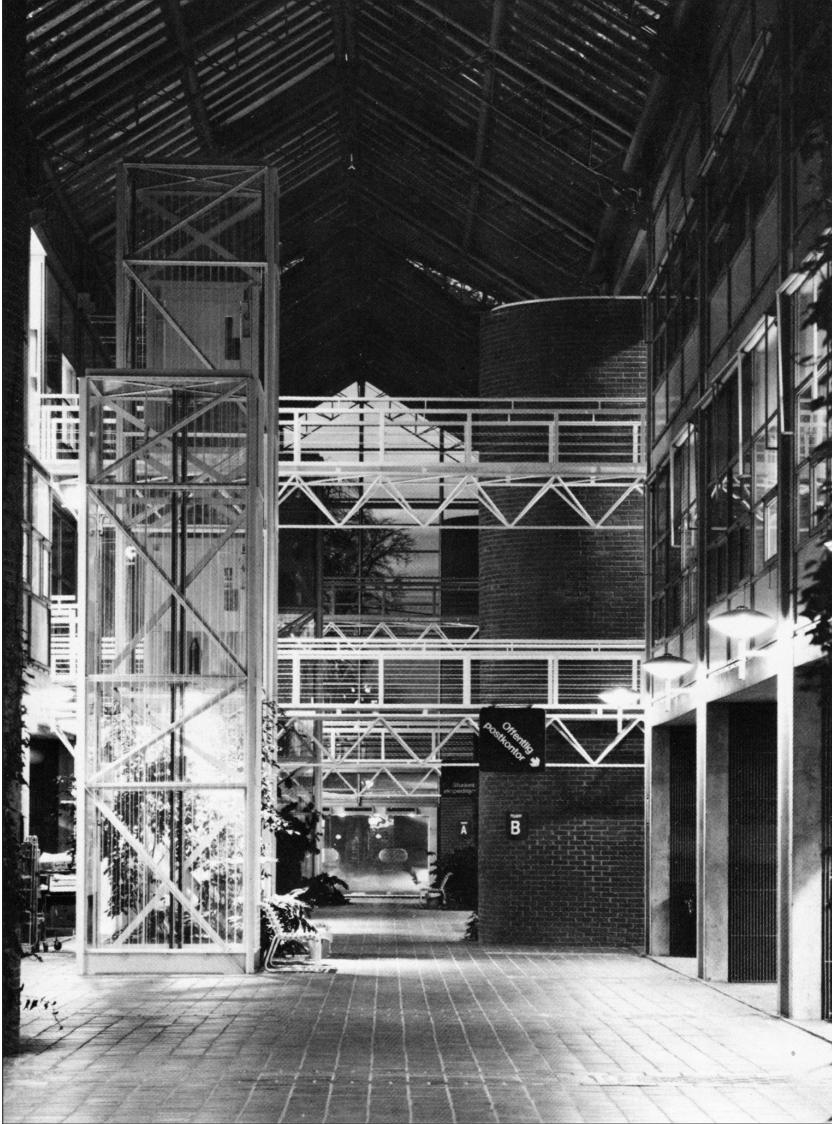
The projected perspectives within the analysis have aimed to discuss the very moment of inception of the project. As such, the analysis has mainly treated ideas, as well as ideals and imaginaries, circulating the within the process of translation leading to the structural and programmatic disposition of the project. What the analysis has not had capacity to embrace is the issue of how the project has actually functioned after it was built and what the qualitative consequences of the dialectical process of intertwining ideas, the translation process and modifying factors were in the real world.²⁰⁹ I have intentionally avoided the question: "Does it really function?" because such a simplification of rather complex matter usually results in a normative critique where the project is reduced to being either good or bad. Rather, the perspectives have been formulated to show what the project, as an example of large-scale

²⁰⁹ This was researched by among others by Birgit Cold, Houchang Fahti and Sigmund Asmervik in *Evaluering av den overdekte gaten på Universitetssenteret på Dragvoll* (Trondheim: SINTEF. 1985).

architecture of that period, has contributed and subsequently represented in terms of the underlying narratives, their translations and modifying factors.

Dragvoll project was conceptualized when the international architecture culture was overpopulated by structuralist and utopian imaginaries, for example seen in the works of Italian radical architecture practices such as Archizoom and Superstudio. On a general level, this project could be said to belong to the same heritage. The image of Larsen's continuous low-rise university resonates with the images of Archizoom's "Non-stop City" in the way it treats the issue of large-scale box and specific contextuality unfolding within its interior. One significant difference was that Larsen's project was designed not as a critique, but as a project with an intent to be built. As such, it went much further than its Italian relatives did, because it was realistic and intentional in its treatment of the necessary pragmatics, from the level of solving functional issues to creating architectural expression.²¹⁰ Larsen's project was eloquently balancing between the dreams of the discipline and the expectations of the profession – the project was open-ended yet resolved, flexible yet permanent, generic yet highly specific.

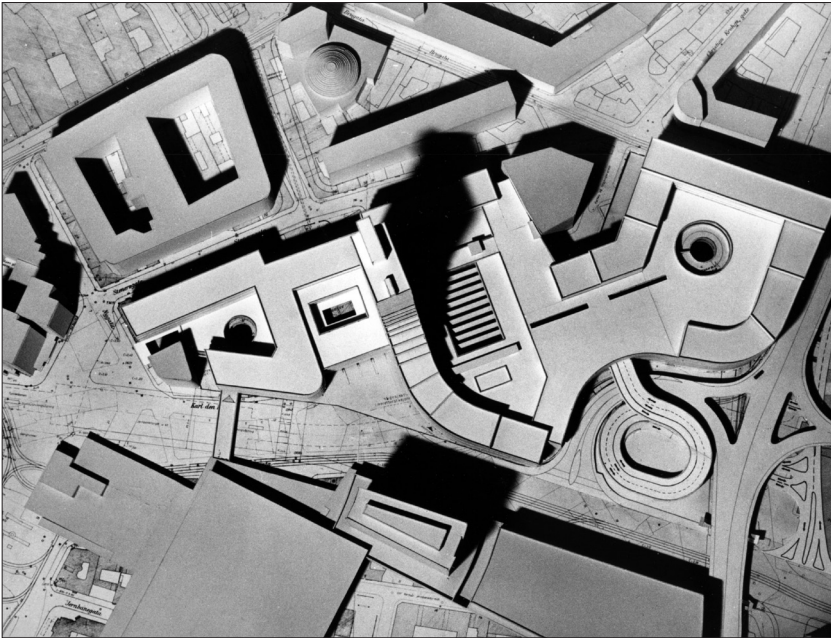
210 In order to illustrate the architectural ambition that was cascading through different scales of the project, I chose to bring Knud Larsen's closing remarks from the interview where he explains the articulation of the façade: "We tried all different solutions, from brick to other materials. Many sketches and model were produced. We ended up with *supereternit*, but we tried to make it nicer as much as possible. When you see the corner of the building, you may realize that the plates fold around. It was difficult to do, but it was important the corners were continuous. In addition, I did not like the white surface color of *eternit* plates, so we tried to color them with iron(II)sulphate [jernvitrol]. There was a sample outside the mock-up house for several years. It became increasingly nicer with rust brown tone. I wanted the whole façade done in this way and the producer agreed to make such a product. When the introductory samples came, they were not as homogenous having some small differences. The client, SBED, would not approve such a material, as the building would look speckled. We had to change our idea." Interview with Knud Larsen and Mirza Mujezinović, 31/08/2009, Oslo.



73: Night view of the interior street, as published in *A+U* no. 148 83:01 (Photo: Jens Fredriksen/Teigen).



74: Street crossing, as published in *A+U* no. 148 83:01 (Photo: Jens Fredriksen/Teigen).



75: Model, the view from top. DnC Vaterland, F.S. Platou, 1968 (Photo: FSP).

4. The Large-Scale Trials: Vaterland

While the planning of the new university at the outskirts of Trondheim was well under way in the early 1970s, something else was unfolding in the center of Oslo. One of the main Norwegian banks, Den norske Creditbank (DnC), was engaged in a large-scale building development at Vaterland, a central urban area strongly affected by the construction of the city highway and the eastbound subway system. The project would, in its fifteen-year long process of planning (1965–80), get several iterations varying in size, organization and approach to the surrounding city. On one side, there were iterations conceptualized around the idea of a shopping-business center as an introvert urban megaform,²¹¹ and on the other, the ones conceptualized around the idea of an extrovert and fragmented development consisting of several interdependent volumes. The first group occurred during the 1960s, at the beginning of the planning process, while the second group occurred in the 1970s as politicians, planning authorities and emerging public participation forces started challenging DnC's plans. What characterizes the former is the increasing size of the proposals: from the initial plan by architect Engh being around 100,000 m²; Platou's first preliminary proposal from 1967 suggested a development of 130,000 m²; the second proposal from 1968 suggested 230,000 m² (75) and the third one from 1969 suggested 260,000 m². The latter group of iterations is characterized by the decreasing size of the proposals: in 1972–74, the size was approximately 175,000 m², while in 1976, the size would go down to 135,000 m².

DnC's Vaterland project, along with its various iterations, is essential in the discussion on the development of large-scale architecture as it is one of the early large-scale interventions within the existing urban context in Norway. Firstly, this project illustrates how top-down approach in the implementation of large-scale functioned within the framework of unfolding social-democratic modernization project. Within such a context, the dialectic relationship between large-scale private capital and its strong connection to the political establishment performed as one of the driving forces behind development in

211 The concept of *megaform* is taken from Kenneth Frampton's lecture essay "Megaform as Urban Landscape," University of Illinois/School of Architecture, 2010.

the central parts of Oslo.²¹² F.S. Platou, who facilitated this process, was one of the largest and most powerful architectural practices in Norway.²¹³ Secondly, controversies surrounding the project represent an example of emerging bottom-up influence. The planning process of DnC's Vaterland happened at the very moment of political upheavals of the late 1960s and early 1970s when political activism started making itself apparent.²¹⁴ This project was one of the first cases where an articulate ideological critique towards the modernist planning paradigm and local planning procedures managed decisively to influence its process. As such, DnC's Vaterland was a project where public opinion and politicization of planning practice became an essential modifying factor in the making of large-scale urban architecture. Thirdly, this project was planned amidst a changing approach to transportation and traffic infrastructure within urban areas. The critique of existing transportation plans (based on modernist principles and hegemony of vehicular traffic infrastructure) would become institutionalized, redirecting the focus at the idea of pedestrian realm and limitation of car footprint within the urban centers.²¹⁵ DnC's Vaterland project explicitly illustrates how this change influenced the conceptualization of large-scale architecture, as well as it sheds light on a changing understanding of the relationship between infrastructure and urbanity within the context of existing city center.

The following chapter addresses the project's different iterations from 1960s to 1970s. Here, I discuss how the dialectic of translation unfolded, as the complexity within and around the project increased. The most compelling aspect within this project was its process, the intertwining of the architect's intentions with the inherent and emerging modifying factors of the changing context. DnC's project was in continuous transformation. If Larsen's project at Dragvoll was an explicit product of a direct translation of the architect's imaginaries into the physical form, being deeply rooted in the structuralist approach, this project was a product of an intense two-way translation process where modifying factors would strongly affect the architect's imaginaries. This chapter endeavors to describe the dialectics of this process, especially in terms of what happened in the transformation of the project from a large-scale box into a fragmented project consisting of several interdependent volumes.

212 By 1972, the project's design development had monthly expenses of 500,000 NOK (equivalent to 5 million today). Per Eggum Mauseth, *Oslo bak fasaden* (Oslo: Pax Forlag, 1991), 31.

213 Wenche Findal, "FS Platou," *Norsk biografisk leksikon*, https://nbl.snl.no/F_S_Platou.

214 Jan Carlsen, *Regnbuebyen* (Oslo: Pax forlag, 1993), 38–42.

215 After two years of preparation and legal procedures, *Plan for Street Use in the Central Area of the City* [Gatebruksplan for sentrale byområder] was approved by the city council in 1973. *The Transport Analysis for Greater Oslo* [Transportanalysen for Osloområdet] from 1965 was still the current plan, while this new plan could be seen as a reaction by the planning authorities towards the public's changing attitude towards the large-scale infrastructural interventions. In this plan, focus was directed at how to reduce traffic from the urban streets – term streets was used, not roads – and how to implement soft elements and greenery in the urban landscape. For more, refer to Even Smith Wergeland, "From Utopia to Reality – the Motorway as a Work of Art" (PhD Diss., Arkitektur- og Designhøgskolen i Oslo, 2013), 333.

S O U R C E S

Besides the municipal negotiation documents, there are two articles about DnC Vaterland project: Helge Ramstad's article "Vaterland – 15 års arbeid for hva?" published in the magazine *Kontrast* (5, 1969), and Francis Sejersted's article "En «Banque d'Affairs»" published in *En storbank i blandingsøkonomien – Den norske Creditbank 1957–1982* (Gyldendal Norsk Forlag, 1982). The latter article was republished as a working paper "Hvem kan redde city? Vaterlandprosjektet 1954–1979" in *Fosfor*, TMV-senteret/University of Oslo, no. 21, May 1990.

These articles frame the DnC Vaterland project from the socio-political perspective. Ramstad's article, being strongly colored by the leftist ideology of the late 1960s, had been written as the project was developed and could be read more as a critique of the political decision making processes surrounding the project itself.²¹⁶ Sejersted's article, however, written some years after the cancellation of the project, was published in DnC's 125-year anniversary book that illustrated the bank's evolution in the period 1957–82. This article discusses Vaterland in terms of how the political and planning decision-making process unfolded and intertwined (and subsequently contradicted) with the private capital as explicated through the notion of DnC as a *Banque d'Affairs*.

The primary empirical basis for this analysis will be the architect's drawings and descriptions obtained from Platou Arkitekter (previously F.S. Platou, the architect behind the DnC Vaterland project). I have also used written documents – letters and meeting minutes exchanged between the municipality, the bank and the architect – all of which have been found at the Oslo City Archives [Oslo Byarkiv]. Additionally, I will draw on the above-mentioned article by Francis Sejersted, since it contains a considerable amount of empirical data obtained from the DnC archives [Banksjef Melanders håndarkiv]. In addition, an important empirical input comes from interviews with Jan Georg Digerud, the project architect working for F.S. Platou in the late 1960s and Jon Platou, architect and F.S. Platou's son.

S O C I E T Y

The Bank in the Mixed Economy

The post-war period in Norway was the era of modernization and democratization. The welfare project was being developed under the leadership of the Norwegian Labor Party, characterized by the state's planning control and regulatory approach. Yet, there was also the commercial banking sector

²¹⁶ The documentation supporting this article was collected by the group KANAL (more info on this group will be presented later). Helge Ramstad, a member of KANAL, edited the material into this article.

where the private initiative and its capital thrived.²¹⁷ What was important for the commercial banking sector was the ability to adapt itself to the state financial and credit policies, and subsequently to exploit those potentials that these had offered. Sometimes these commercial banks would also influence policymaking. Such context formed a unique condition in the post-war economy, known as the ‘mixed economy’.²¹⁸

The policy making by the state and the shifts in the market itself were mutually intertwined – adaptation *to* and exploitation *of* political conditions were related to the equivalent adaptation *to* and exploitation *of* the changing conditions within the market – and for a commercial bank such a context would be highly challenging.²¹⁹

In the mid-1960s, DnC became clearly the largest commercial bank in Norway. Simultaneously with its expansion, the bank acted as *Banque d’Affaires* – a merchant bank providing both capital to companies in the form of share ownership instead of loans, and counseling on corporate matters to the firms it engaged with. There were three key projects through which this unfolded: Sør-Norge Aluminium A/S, UNION and Vaterland. The first two were industry related, while the last one was an urban development. It is through such large and inventive projects that the bank tried to establish its position as an important player in the development of society.

This could be seen in relation to the democratization and modernization processes that would also start influencing the sphere of private commerce, a measure initiated by the government. The way of thinking, which previously characterized private businesses, was seen as too narrow and not applicable in relation to the decisions that were to be taken by the banks in general. These tendencies would entail that the commercial banks had a special and central societal function with a responsibility larger than what was previously expected from a privately owned company. The decision-making by the banks would be seen as comparable to decision-making by the state apparatus, because their decisions had a capacity to affect the society as a whole.²²⁰

DnC’s Vaterland project was to be an effective and modern center placed on a strategic position in the city. Still, one may question DnC’s motivation

217 Its growth was not as impressive as the growth within the credit market, something that had to do with the strict credit policies imposed by the state. Still, the main actors responsible for the growth were the state banks, such as Husbanken and Lånkassen. Francis Sejersted, “Innledning,” in *En storbank i blandingsøkonomien – Den norske Creditbank 1957–1982*, ed. by Sejersted Francis (Oslo: Gyldendal Norsk Forlag A/S, 1982), 12.

218 The English translation of term *blandingsøkonomien* – the mixed economy – is taken from Francis Sejersted, *The Age of Social Democracy: Norway and Sweden in the Twentieth Century* (Princeton: Princeton University Press, 2011).

219 Francis Sejersted, “Innledning,” in *En storbank i blandingsøkonomien – Den norske Creditbank 1957–1982*, ed. by Sejersted Francis (Oslo: Gyldendal Norsk Forlag A/S, 1982), 12.

220 *Ibid.*, 13–14.

for such a building assignment beyond the narratives of profitability and effectiveness. What would direct DnC in an assignment of such a great size and importance (which at one point would have become the largest single investment in Norway)?²²¹ Was it the general idea of societal responsibility, as Sejersted discusses, through which the bank was seen as an integral participant in the development of the Norwegian society? Alternatively, was it a specific mentality derived from the overarching social-democratic welfare project? Either way, it is necessary to keep in mind two aspects from which DnC's Vaterland project cannot be separated. The rise of the mixed economy had created a societal framework – the macro conditions; while DnC's intention to act as the *Banque d'Affaires* had created the corporate ambitions – the micro conditions.

The Site: Generic City

Dutch timber merchants named the area Vaterland in the 17th century – Waterland – at that time Oslo Fjord (Bjørsvika) went further inland and Vaterland was a swampy area used by the Dutch to load timber. In the course of two hundred years, the fjord's shoreline moved further south and Vaterland grew as an informal settlement in the 19th century. (76) In 1839, the area became incorporated into the city's administrative borders. For many years, Vaterland was decaying and there had been few attempts to reverse this tendency. It was first in 1954 that the city council decided to initiate the rezoning processes. (77) By the early 1970s, almost the whole of Vaterland was demolished. Partially, this was a consequence of the already planned infrastructural projects in the area: the establishment of the new city road system, the expansion of the eastbound railway station and the plans for the eastbound subway system.

Due to its strategic position in relation to regional and local infrastructural systems, Vaterland would contain projects that would (in terms of type and size of programs) facilitate the city at large: the area may be characterized as Oslo's central business district.²²²

In addition, Vaterland is a place where different ideological planning regimes have been projecting their stratagems from the mid-20th century to present day. DnC and Platou's plans from 1960s represent the first stage of the area's transformation defined by the modernist doctrine. LPO's plans from the 1980s

²²¹ As this thesis discusses, DnC's role in the (unrealized) development of Vaterland is indisputable. In the late 1980s, DnC would move its headquarters to the newly built waterfront area of Aker Brygge, while in 2012 DnB would relocate to Bjørsvika's Barcode. I would argue that the story of how DnC/DnB's large-scale capital moved within the city in the last fifty years could be seen as the story of how Oslo was modernized and transformed. DnC/DnB would directly and indirectly be an important partaker in some of the central urban developments in Oslo, from Vaterland, Aker Brygge to Bjørsvika.

²²² The list of large-scale programs at Vaterland is long. Just to mention some: The main national/regional/local infrastructural hub, Oslo S, Bus Terminal and all subway lines; until recently, the postal service depot Postens Brevsentrall; the main indoor arena Oslo Spectrum; one of the main shopping malls, Oslo City; Radisson Plaza, and numerous office buildings housing some of the main financial and political subjects.

represent the second stage defined by the postmodern reinvention of traditional European urbanity, while the current undertakings by the state agency ENTRA to redevelop properties Postgirobygget and Lilletorget 1 represent large-scale capital's attempt seamlessly to integrate the notion of sustainability into large-scale urban complexes. As such, Vaterland is Norway's prime, if not the only example, of generic city.²²³ DnC's project for the area may be seen as an endeavor that initiated and subsequently established the very character of Vaterland itself: being a site of a continuous modernization urban project; and therefore it is at the focus of this thesis.

BUILDING ASSIGNMENT

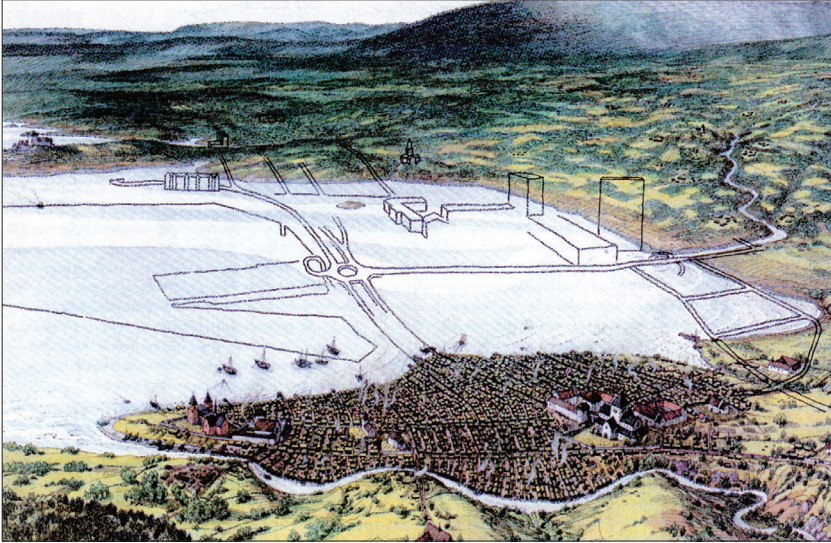
The Foreplay

Oslo's city council had decided that most of the area was to be expropriated for the purpose of redevelopment, but this decision would not be executed unless the involved property owners implemented the rezoning plan themselves within suggested deadlines. The plan from 1955 ignored the existing city structure and the property lines in a true *tabula rasa* manner – no wonder that the council's decision was not implemented by the local owners. (78) An additional attempt to redevelop the area was tried through the stock-based firm “Andelslaget Vaterland Sanering”, established in 1953, into which local property owners would voluntarily join.²²⁴ Not even this had managed to have an effect, and by the end of 1959, the municipality decided that expropriation of the area was to be implemented.

It was obvious that the original plan, from which the redevelopment process had started, was outdated and was to be changed – it was more of a tool for initiating the processes than actually an image of an ambition through which Vaterland was to be redeveloped. The architect John Engh, who was involved in some of the preliminary rezoning work done for “Andelslaget Vaterland Sanering”, was hired by the city planning office to work on zoning. The new plan was presented in 1961 (79–80): Vaterland was suggested to be zoned as a pure retail district primarily due to its proximity to the main railway and subway stations. This new development, of some 100,000 m² was to consist of one 20-floor tower and several 4–5 story-building volumes some of which would be connected with “pedestrian bridges with kiosks, like some kind of

223 The term generic city is used as defined by Rem Koolhaas, “Generic City,” in *S,M,L,XL*, edited by Rem Koolhaas and Bruce Mau, (New York/Rotterdam: Monacelli Press/010 Publishers, 1995), 1239–1264.

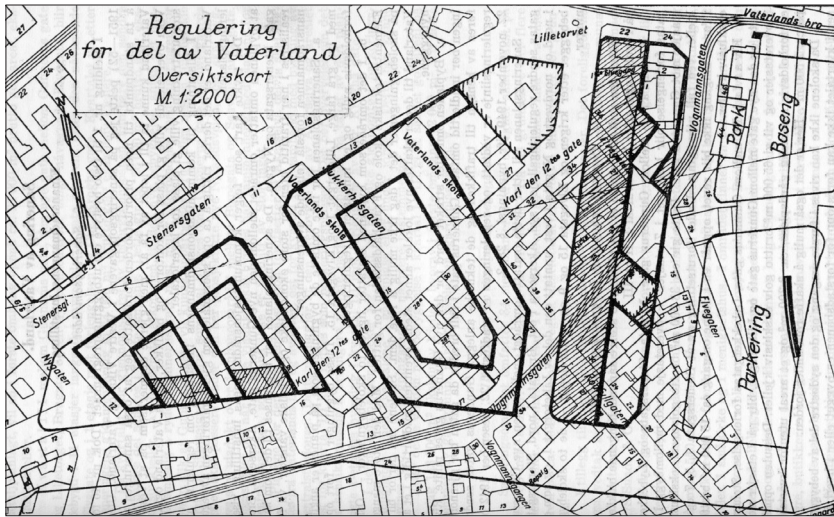
224 “Sak 171, Sanering av Vaterland,” *Aktstykker vedkommende Oslo Kommune – Oslobystyres forhandling 1954–1955*, June 1 1954 (1955): 93–94.



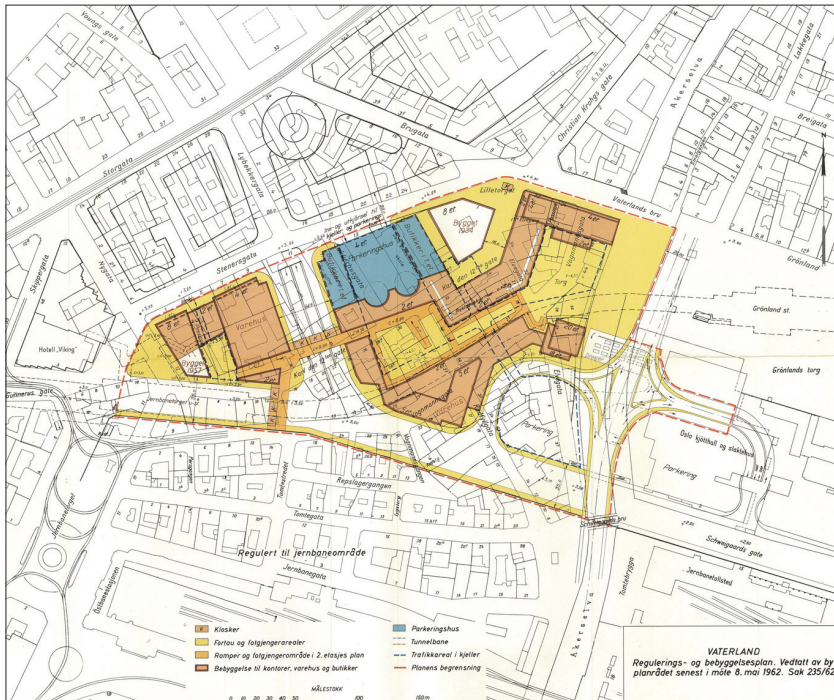
76: K.F. Keller, medieval Oslo and a schematic depiction of the current road system. (Illustration: taken from *Mastering the City II*, page 33).



77: Vaterland in 1952. (Image: Widerøes Flyveselskap AS/Vilhelm Skappel).



78: Zoning plan for Vaterland, 1954. (Drawing: "Sak 170, Regulering av Vaterland," *Aktstykker vedkommende Oslo Kommune – Oslobystyres forhandlinger 1954–1955*, June 1, 1954 (1955), page 87).



79: Zoning plan for Vaterland, 1965. (Drawing: "Sak 198, Overenskomst om bortfeste, sanering m.v. samt regulerings- og bebyggelsesplan for Vaterland," *Oslo Bystyre – Saker til behandling* (1965), September 23, 1965).



80: Model photo, 1965/6 (Source: Unknown, found at Oslo Plan- og Bygningsetaten).

Ponte Vecchio.”²²⁵ The building program included two department stores, a supermarket, restaurants, offices and a four-story parking house for 560 cars (with additional 500 parking spaces spread throughout the project). The plan had a commercial frontage of 1,430 meters on the street level and 500 meters on the gallery level, as a comparison the main shopping street in Oslo at the time, Karl Johan’s gate, was 1,000 meters long from Østbanen to Nationaltheateret.

The development of the new plan happened simultaneously with the work to find potential investors. Several parties were interested in the project, and by October 1961, negotiations were initiated with a consortium of Christiania Bank, Kreditkasse and DnC. In 1962, Christiania Bank and Kreditkasse withdrew.²²⁶ DnC would set up an ad hoc 15-million NOK company (150 million today), Vaterland A/S, thereafter remaining the sole player in the project.²²⁷

It was clear that the intention to lease the land to *one* instance was synonymous with the intention of a *singular* building, despite the fact that the suggested plan was fragmented in several building volumes. Undoubtedly, it was the seductive image of a grand new future that set a pretext for the planning procedures. The whole site was to be leased at once to one instance, as it turned out, this instance would be a private organization, which in this case was the largest commercial bank in Norway. In 1965, the city council approved Engh’s plan. It was to be the basis for the lease contract, which would be signed a year later – DnC was to lease the land for the next ninety-nine years. The basis for a large-scale development at Vaterland was therefore created.

DnC and F.S. Platou Take Command

DnC was highly interested in the project from the very start, primarily because the bank’s current headquarters was getting too small, and to build a new headquarters at Vaterland was seen as a unique opportunity. By the end of 1961, a group of DnC high representatives led by the bank’s CEO Johan Melander and Aage Biering, the CEO of contractor firm Gustaf Aspelin, met with the architect F.S. Platou. He was to serve as an advisor in the process of rezoning.²²⁸ Their mission was to clarify the economic rationale of the project in terms of its potential risks, profitability and financing. The conclusions were positive. The total financial responsibility for the project, including demolition

²²⁵ Engh’s description from January 10, 1961. This source comes from Francis Sejersted’s “Hvem kan redde city? Vaterlandprosjektet 1954–1979,” *Fosfor*, TMV-senteret/University of Oslo, no. 21, May 1990.

²²⁶ At the time, Kreditkasse was completing its headquarters building at Stortorvet, designed by architect F.S. Platou. Soon after he would become the mastermind behind the future DnC Vaterland project.

²²⁷ This process is described in “Sak 159, Vaterland,” *Oslo Bystyre – Saker til behandling*, April 6, 1978 (1978): 3.

²²⁸ One of the 1961 zoning provisions suggested by the city’s planning council was that the project was to have a consultant – a coordinator architect – affiliated to the municipality. “Punkt 6. Sak 198, Overenskomst om bortfeste, sanering m.v. samt regulerings- og bebyggelsesplan for Vaterland,” *Oslo Bystyre – Saker til behandling*, September 23, 1965 (1965), 10.

of the existing building mass, was calculated to be approximately 200 million NOK (equivalent to 2.4 billion today), something that was seen as a profitable investment in a long-term perspective.²²⁹

The project also got a great deal of support from the municipal side, especially from the city's mayor, Brynjulf Bull.²³⁰ The existing city center of Oslo was seen as outdated for the modern business and shopping, and Vaterland was to be a place where a modern city center could emerge. The aim was to create an environment comparable to the one developed on the western side of Oslo center, Vestre Vika, but with a significant difference in its scheme. In the case of Vika, the municipality had leased the ground to several investors separately, where as in the case of Vaterland, the site was to be leased in its totality to only one instance. The available empirical material does not show an in-depth argumentation for such an approach, beyond the statement by Bull, that "the plan is a very good since it promotes the idea of a singular development. It would be too complex to divide the area in different entities and lease them to different interests."²³¹

After the provisional approval of the plan and the signing of the land lease contract, the project had taken off. DnC strategically chose the company board for the Vaterland A/S. The bank's CEO Johan Melander was to be the chairman while the board included a wide range of professionals, both from the banking sector, from infrastructure/traffic engineering, and from the city's retail chamber. The bank was eager to put together a team that would not only have substantial experience and expertise, but also a team that would represent different interests in the city. The redevelopment was to be a symbol of a rational and planned management of growth.²³²

Simultaneously with the establishment of the new company, and the clarification of the financial basis, which also included finding of potential tenants, the revision of the zoning plan was well under way. Even before its approval in 1965, it was clear that the plan had to be changed. Both Engh, who was originally hired by the municipality to develop the plan, and Platou,

229 Francis Sejersted, "Hvem kan redde city? Vaterlandprosjektet 1954–1979," *Fosfor*, TMV-senteret/University of Oslo, no. 21, May 1990, 4.

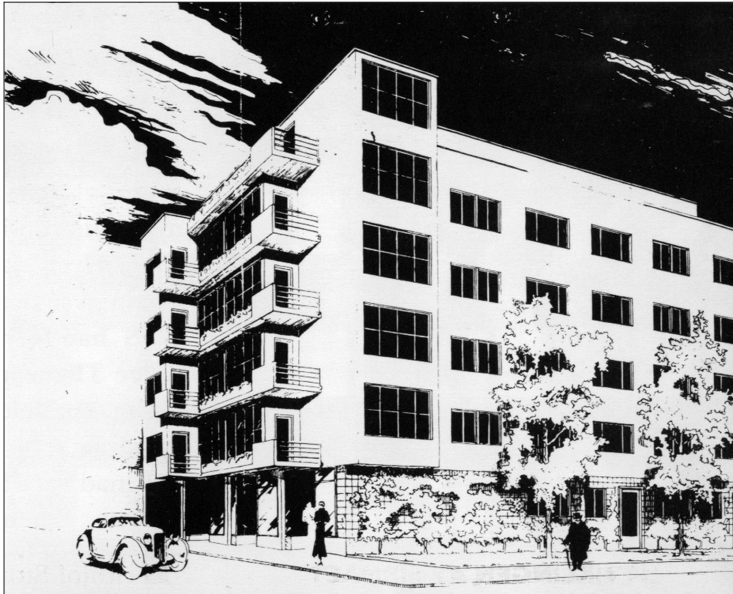
230 Brynjulf Bull was the brother of the professor and dean, Edvard Bull, who was in the jury for the University in Trondheim competition in 1968. He argued that if one agreed with this assumption, which in his view was also in accord with the municipality's intentions, there would not be so many possible investors capable to execute such a large assignment. He went against those who criticized that the lease was being given to a commercial bank – despite being a Labor Party official, he was positive towards private capital. In his view, the land lease could be given to any instance (organization, joint venture, etc.), the necessary capital would still come from a commercial bank, an unavoidable fact. Helge Ramstad, "Vaterland – 15 års arbeid for hva?," *Kontrast* 16 (1969): 13–14.

231 Brynjulf Bull, statement from a debate at the city council held on December 23, 1965. Source: Helge Ramstad, "Vaterland – 15 års arbeid for hva?," *Kontrast* 16 (1969): 13.

232 Francis Sejersted, "Hvem kan redde city? Vaterlandprosjektet 1954–1979," *Fosfor*, TMV-senteret/University of Oslo, no. 21, May 1990, 7.



81: F.S. Platou in 1934 (Photo: Unknown).



82: Skovveien 7, F.S. Platou, 1937 (Illustration: FSP).

who became the bank's advisor in the process of rezoning, expressed the need for a revision, something that was also taken into account within the juridical framework of the land lease contract.²³³ The municipality and the bank on several occasions chose not to involve architect Engh in the discussions, rather favoring architect Platou, who would by the end of 1966 take over as *the* architect for the development.²³⁴ At some point, the bank considered also a possibility to issue an architectural competition, but changed its mind since it feared that the competition would be too binding.

Position – Opposition

The period during which DnC's project was unfolding was highly turbulent. For fifteen years in a row, the city of Oslo had a negative population growth and the political atmosphere was slowly changing. The post-war optimism was receding, being slowly replaced by the period of doubt.²³⁵ The authority of the state and existing social structures were challenged; the 1968 generation was making itself heard. An event, illustrating this new atmosphere was Norway's plebiscitary rejection to join the EC in 1972, a decision against the will of the political establishment. In such a politically and economically insecure context, a large-scale redevelopment project by one of the largest commercial banks would turn out to be a risky endeavor.

The process surrounding DnC's Vaterland project is inseparable from the role of the powerful architect F.S. Platou. Almost equally important was also the event "Et sted å være" at Vaterland School in 1969 as it helped mobilize critique and subsequent resistance towards the project. Here I will shed light on both, as these represent two sides that had created the framework within which the project would find itself, an opposition between the top-down approach and bottom-up critique.

F.S. Platou came from an upper class family with a strong financial and political background.²³⁶ (81) He was a modernist architect educated at Eidgenössische Technische Hochschule (ETH) in Zürich from 1922 to 1926 under Karl Moser and Siegfried Gideon, with additional studies in economy from Zürich and London. (82) He obtained initial experience at the offices of Lars Backer in Oslo and Erich Mendelsohn in Berlin, while his independent

233 Ibid., 7.

234 Ramstad (and KANAL) questioned this controversy and the mayor's unconditional appraisal of the project. This was seen as a part of an un-transparent decision-making process within the municipality and its planning department. Helge Ramstad, "Vaterland – 15 års arbeid for hva?," *Kontrast* 16 (1969): 13–14.

235 Edgeir Benum, "Tvilens tid," in *Oslos byhistorie – bind 5* (Oslo: J.W.Cappelens Forlag A/S, 1994), 339.

236 Among others, his brother Ragnar Stoud Platou was one of the biggest shipbrokers in the world, for more detail see Arnljot Strømme Svendsen, "Ragnar Stoud Platou," *Norsk biografisk leksikon*, https://nbl.snl.no/Ragnar_Stoud_Platou.

architecture practice started in 1930.²³⁷ The firm had an impressive growth: there were five employees during the war; 25 employees in 1950; 50 employees in 1957, and 100 in 1975. In order to maintain momentum from the post-war building boom, F.S. Platou also established a branch company, Norconsult in 1956, focusing on consultancy in planning, management and engineering.²³⁸ It is important to note that most of F.S. Platou's architecture oeuvre were in urban areas, covering almost all types of programs from housing projects, office buildings, bank buildings, museums, hotels and neighborhood centers and could be characterized as a modernist mainstream.²³⁹ This "different architect"²⁴⁰ effectively managed to merge practice of architecture with that of business something that resulted in one of the largest, most prolific and powerful architecture firms in Norway.²⁴¹

In April 1969, a youth gathering "Et sted å være" [A place to be] was arranged at Vaterland School, as a protest event against commercial "Teenage Fair". The organizers mobilized broadly, even the municipality of Oslo sponsored the event with 20,000 NOK and allowed the youth to use the facilities of Vaterland School, which at the time was awaiting demolition due to DnC's project plans. "Teenage Fair" was never organized, while "Et sted å være" grew bigger, having several hundred active participants, in addition to visitors to exhibitions, debates and workshops.²⁴² Some of the more sounding participants were Jan Erik Vold, Georg Johannesen and Arne Nordheim. It would be the first large youth action in Norway, and a forerunner of the incoming youth rebellion.²⁴³ In general, this event was an example showing that the image

237 In 1927, just after the studies, F.S. Platou returned to Oslo to work for Lars Backer, a modernist pioneer in Norway. Backer discovered architecture and business talent of young Platou, something that resulted in a partnership contract signed already in December 1928. They were to initiate partnership in 1931, after Platou's two-year professionalization period at Erich Mendelsohn in Berlin. Backer suddenly died in spring 1930; Platou returned from Berlin, taking over the firm along with its initiated projects and ten employees (one of these was Erik Rolfsen, the City Plan Commissioner for Oslo 1947–1973). See Ingvar Mikkelsen, "Det store arkitektkontoret," *Byggekunst*, 4 (1991): 238.

238 Through this company, which today is one of the largest ones in Norway, Platou would get international commissions, among others those for Norwegian developmental aid in Africa.

239 The list is long: Drammen Courthouse, Phillips Tower at Majorstua (demolished in 2000), SAS building at the National Theater, Kon-tiki Museum, Tøyen Center, Kredittkassen at Stortortorvet, Housing at Skovveien 7/ Oslo, Veritas at Helsefy, Kommunenes Hus in Oslo. In 1970, the office would also start doing interiors for the large cruise ships.

240 The editor of *Arkitektnytt*, Dag Rognlien referred to F.S. Platou as a different architect [annerledes arkitekt], due to Platou's ability to conduct architecture as a business-based practice.

241 During the years, an impressive international network of contacts was built, something that would be indirectly crowned with participation in the competition for the headquarters of World Bank in Washington in 1989, being one of the eight offices prequalified from 178 applicants; also being the only European firm. In 1975 the leadership of the office was taken over by F.S.'s son Jon Stoud Platou, with a business degree from Genève University and architecture masters from Stanford University. F.S. Platou continued working until his death in 1980, he died while returning from a construction meeting.

242 Still, the media was skeptical. KANAL's Thorbjørn Axelsen writes "in three months, 80 newspapers used some 85.9 meters of column space on 'Et sted å være'. It must be said that this is a sensational coverage, and even more sensational it gets when one knows that the most of the written material was distinctively negative." Thorbjørn Axelsen, "Et sted å være," *Kontrast* 16 (1969): 42.

243 Tove Solbakken, "Et sted å være – en kulturhistorisk studie av aksjonen ved Vaterland skole, Oslo 1969" (Master Thesis, University of Oslo, 2010), 2.

of the post-war welfare society based on the social democratic project would start rupturing.²⁴⁴ It treated numerous issues from conscientious objectors, environmental protection, free abortion, sex education, city planning, art, contemporary music, rights for the elderly and disabled, etc.²⁴⁵

One of the most engaging topics was the resistance against DnC's developmental plans at Vaterland. This was prompted by KANAL, a group of young activists (mostly architects) in opposition to modernist technocratic doctrines and to the capitalist system in general.²⁴⁶ According to the group, planning itself had become an undemocratic practice unable to facilitate the interest of people. Rather, they wanted to bring back people to the city, something that was in also accordance with the emerging environmental 'soft' ideals of the time.²⁴⁷

KANAL's manifesto suggested that the group focus on developing models for a democratic development of society and un-disguising the existing power structure by making the public aware of the basis underlying the decision-making in planning processes.²⁴⁸ I would argue that these two points from the manifesto explicitly characterize KANAL's resistance against DnC's project.

Unlike the aging project team of DnC, KANAL was agile and effective in using mass media to spread its standpoint, something that mobilized politicians and the general public. In several articles published in the main newspapers, they launched a fierce critique against the planned project due to its presumed introvert character and unapologetic attitude towards car infrastructure. The discussions about the project were taken back to the City Council, even the national parliament, *Stortinget*, was involved. By the late fall of 1969, *Aftenposten*, Norway's largest newspaper, reported that the prospects for DnC's projects were rather grim. In order to keep the project alive, F.S. Platou and DnC started altering the plans to absorb the critique something that would continually happen in the course of 1970s, until the cancelation of the project in 1980.

244 Edgeir Benum, "Mellom overflod og sosial nød," in *Oslos byhistorie – bind 5* (Oslo: J.W. Cappelens Forlag A/S, 1994), 300.

245 Karl Otto Ellefsen, current professor at the Oslo School of Architecture, was at the time a student of medicine. He participated in the event, contributing to the sex education program.

246 The group members were Jan Carlsen, Terje Røllheim, Mette Sjølie, Helge Ramstad, Inger Beaty-Pownall, Jon Guttu and Sverre Nistov, among many others.

247 Tove Solbakken, "Et sted å være – en kulturhistoriskstudie av aksjonen ved Vaterland skole, Oslo 1969" (Master Thesis, University of Oslo, 2010), 47.

248 Helge Ramstad, "Vaterland – 15 års arbeid for hva?," *Kontrast* 16 (1969): 62.



83: Vaterland, the late 1960s (Photo: Oslo Byarkiv).



84: Schweigård Street, the late 1960s (Photo: Erik Næss/Oslo Byarkiv).

EMPIRICAL ANALYSIS

The following empirical analysis is structured around six aforementioned themes, inspired by Jacques Fredet: The large-scale projects in relation to the larger urban context; The large-scale projects in relation to the immediate surroundings; The mode of organization; Infrastructural principles; *Struktur* – Structure and Development possibilities. The same thematical structure is applied in all three cases.

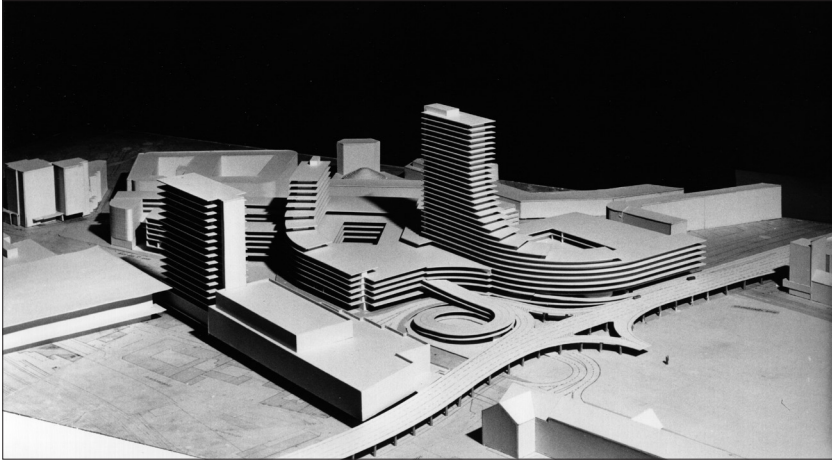
The Project and the Larger Urban Context

A general tendency in how DnC's project related to the large urban context is clear. The proposals of 1968 and 1969 (from now on refereed as the 1960s proposal)²⁴⁹ were mostly identical in the way they approached the larger urban context, while the proposals from 1972, 1974 and 1976 (from now on referred as the 1970s proposal) share equivalent mutual similarity – it is the same project, but developed further. The 1960s proposal's relationship to the city was explained exclusively through textual descriptions, while the 1970s proposal enhanced this relation also through illustrations. These presentational changes were not accidental; they were a consequence of the project's encounter with outside critique, which was gradually gaining momentum. The subsequent issue of transformation of the project and its relation to the city itself is at the focus of this analysis. It unfolds how the architect's understanding of the larger urban context affected the conceptualization of the project and how this aspect was translated into the architecture of the project.

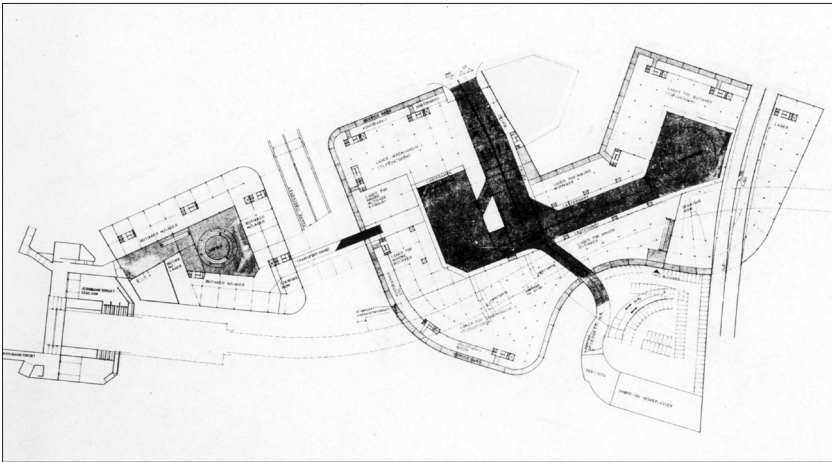
In the project description of the 1960 proposal, Platou had accentuated the fact that the site had a central position within the urban framework of Oslo. The project was seen in relation to the emerging city infrastructure, being adjacent to the city's most important hub, Jernbanetorget and Grønlandstorg, the former would be connected both to the city's subway system and the regional railway network while the latter would be connected to the city's subway system.²⁵⁰ Still, in the architect's view, the future *customers* (as referred by the architect) would mainly come by car. Subsequently, the emerging elevated city motorway – Nylandsveien – on the eastern brink of the site – running north-south, and Schweigaard Street to the south of the site, and running eastward functioned as two access roads leading to the future project. (83–84)

249 The project architect for the 1960s proposal was Jan Georg Digerud. At that time he was in his late 20s, newly arrived from the US, after receiving a bachelor degree from Washington State University in 1963 and a masters degree in architecture from Yale University in 1965. In 1963–64, he was working at Skidmore, Owings and Merrill in New York, directly under the chief designer Gordon Bunshaft.

250 Platou pointed out that the importance of the future regional shuttle railway connection between the east and west suburbs of Oslo (between Lillestrøm and Asker). He also mentioned the capacity prognosis for the eastbound subway system, which was under construction at the time, and that these were stipulated to have an influence pool of 185,000 people. After the completion of these regional and local infrastructural projects, there would be some 60–80,000 people stopping by the area on a daily basis. F.S. Platou in "Forslag til regulering," June 24, 1968, A/S Vaterland, 1.



85: Model, the view from south-east, 1969 (Photo: FSP).



86: Basement plan, 1968 (Drawing: FSP).

This was in accordance to the newly approved municipal transportation plan, *Transportanalysen for Oslo-området* from 1965, which suggested on one side the thoroughfare traffic be led outside the center through a system of ring roads, and on the other, the implementation of large parking complexes just outside the center, in adjacency to the emerging “center ring”. Platou accentuated in the description that the project followed these new municipal traffic plans: it directly tapped into Nylandsveien (which was a part of the “center ring”) as well as it supplied the city with more than two thousand parking spaces. The project’s potential for success was defined by the fact that it was seen an extension of the city’s central business/shopping district, simultaneously as it was to be directly connected to the main infrastructural systems of the city.²⁵¹ As such, the project played directly in accord to the hegemonic modernist zoning strategies.

Still, one may question at what level such an understanding had influenced the project itself. As the model photos and the plan drawings show, the project was connected to the elevated city motorway, Nylandsveien, through a complex system of ramps. (85–86) Firstly, the exit ramp led off the elevated city highway down to the street level, thereafter the system of ramps belonging to the project would lead up to the project’s third and fourth floor, which were the main parking levels.²⁵² The issue of connecting to the subway system, however, was much simpler. The plan of the first basement level shows that the Jernbanetorget subway station was approached as an inherent part of the project. The space of the subway station poured directly into the project, into its first indoor plaza surrounded by three levels of shopping galleries.

The project could be seen as an extension of the city’s infrastructure. On one side, it was an extension of the subway system – one did not need to exit the subway, and thereafter to re-enter the project, one was already there, in the project, at the subway; and on the other side, the project was an extension of the road network – one drove a car off the motorway directly into the project. Because of such an infrastructural modality, the project directly engaged a larger urban scale. This would be translated in a clear architectural attitude towards the articulation of form itself. The project was conceptualized as one uniform volume, where, according to the architect, the form of this volume related itself to the idea of approaching the city from a distance: the appearance of the project from far away was important.²⁵³ The project was a part of a context that was much bigger, belonging to a larger urban scale, something

251 Such an argumentation based exclusively on quantitative approach was one of the aspects criticized by KANAL activists, for more Jan Carlsen, *Regnbuebyen* (Oslo: Pax forlag, 1993), 40.

252 Due to the difficult soil conditions, the project could not have more than one main basement level. Parking had to be placed on the upper floors (the third, fourth and partially fifth floors).

253 Interview with Jan Georg Digerud and Mirza Mujezinović, 21/05/2015, Oslo.

different from being *at* and *inside* the project itself.²⁵⁴

Due to the changing political and societal climate, the project would be radically transformed in the 1970s. “Institutt for Center-planlægning”²⁵⁵ was brought in to conduct a survey of the area in 1971.²⁵⁶ Interestingly, the institute had shown the opposite than what was assumed in the 1960s proposal – the project was to enhance the surrounding city instead of neglecting it, as well as it was to offer office space instead of shopping. The Danish consultants were harsh in their critique; they concluded:

Vaterland project would accelerate the crisis within Oslo center. An investment of such a size and extent that Vaterland project suggests is an extremely risky enterprise. The institute discourages DnC to invest in Vaterland at the present moment.²⁵⁷

Subsequently, the survey was taken as the basis for a new proposal, something that would be explicitly visible in the presentation of the project. The cover of the 1972 booklet showed the top view of the model with adjacent urban context containing neighboring blocks, streets and the elevated highway, while the 1974 booklet had on its cover the whole of the city center showing the newly approved street plan with the movement pattern and the accentuated open spaces [Gatebruksplan for det sentrale byområde]. (87–88) As opposed to the 1960s proposals, which were strongly justified through the narratives of effective and available city infrastructure, the 1970s proposals would not touch upon these issues any significantly; rather they were contextualized according to what was within the project’s surrounding context.²⁵⁸

The city’s programs emerged as the main project criteria. For example,

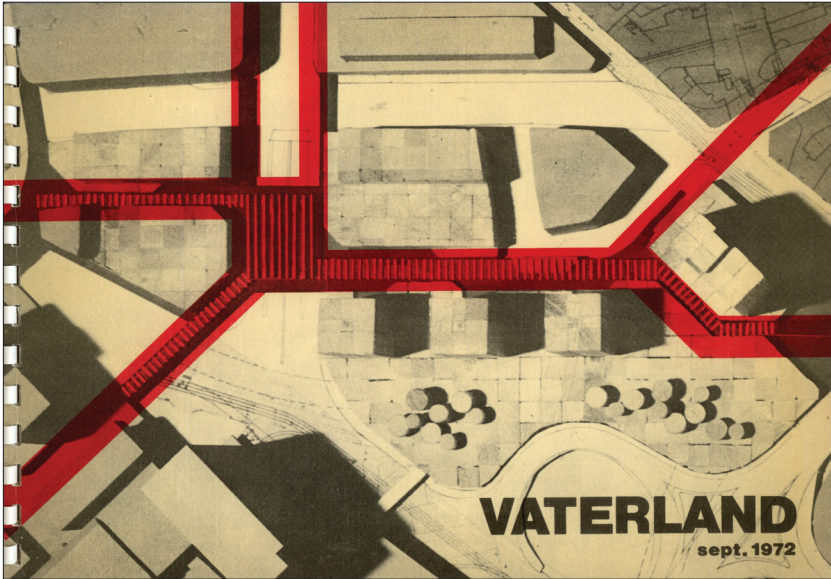
254 In the interview, Jan Georg Digerud draws on the analogy to Manhattan, which despite its scale and distant visibility, has an interesting street level. In such a context, the large-scale does not condition possibility of well-functioning outdoor spaces.

255 “Institutt for Centerplanlægning” was one of the foremost consultants on shopping centers in Scandinavia at the time, but in the 1970s they would move more towards the paradigm of urban design. The institute was established in the late 1950s with the leading figure architect John Allpass. Its approach was to integrate the field of architecture with that of economy as a basis for the practice of planning. In 1982, John Allpass would be on the winning team in the “Byen og Fjorden” competition for the redevelopment of Akers Mekaniske Verksted (current Aker Brygge) along with Peter Butenschoen (who had to conceal his participation due to the legal informalities).

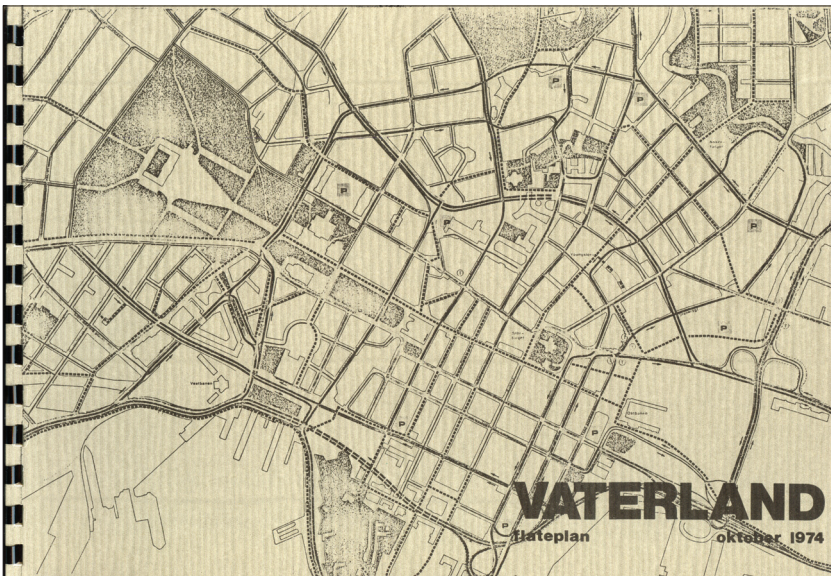
256 It was DnC who brought in consultancy in order to find a way out of the growing critique. Interview with Jon Stoud Platou and Mirza Mujezinović, 15/11/2011, Oslo.

257 The institute’s verdict is taken from Per Eggum Mausest, *Oslo bak fasaden* (Oslo: Pax Forlag A/S, 1991), 33–34. Here, I should also bring KANAL’s factual critique based on the municipality’s and NIBR’s prognosis. The growth in the city center’s total shopping area by 1990 was stipulated to be some 56,200 m². In 1969, the project suggested shopping area of 40,130 m², corresponding to 71.4 % of the expected 20-year prognosis. The size of shopping area in the project was some 26% of the total existing shopping area in the city center. Similarly, according to the municipality’s calculations, the number of employees in Oslo would increase from 121,000 in 1961 to 150,000 in 1990. The project’s size stipulated that there were to be some 11,000 people working in DnC’s project. KANAL, “Intervju med finansrådmannen, byplansjefen, etc.,” *Kontrast* 16 (1969): 24–25.

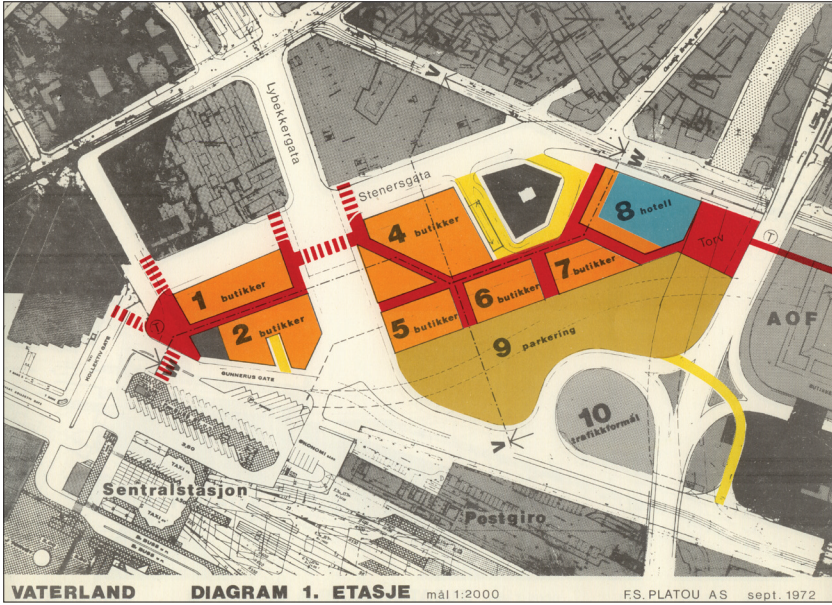
258 This could be related to the emerging criticism towards the municipal traffic plans such as *Transportanalyse for Oslo-området* – by the early 1970s, the echoes of the *Buchanan report* from 1963 had come to Norway, something that would affect the approach to how traffic was to be planned and managed. Some of the city highway projects would be aborted, or be strongly downscaled.



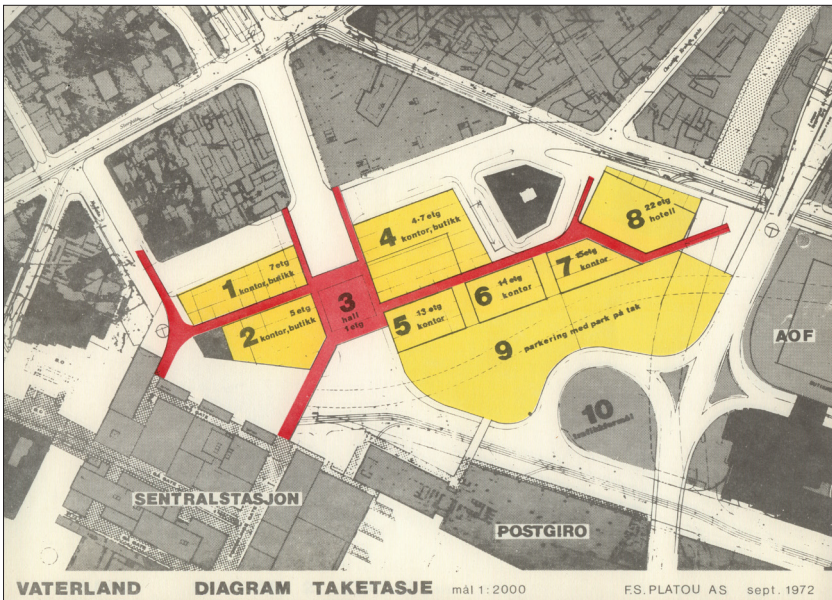
87: Cover, the project book, 1972 (Fascimile: "Vaterland 1972", F.S. Platou).



88: Cover, the project book, 1974 (Fascimile: "Vaterland 1974", F.S. Platou).



89: Diagram level 1, 1972 (Drawing: FSP).



90: Diagram roof level, 1972 (Drawing: FSP).

the explanation of the project in 1972 starts with the inventory of what large projects had been unfolding in the vicinity of Vaterland, from the Postgiro building that was under construction, the preliminary design for the new central railway station, to Labor Party's Youth Organization (AUF)'s culture and adult education center at Grønlandstorg. (89–90) The architect accentuated that the primary idea was to coordinate all these different developments into one whole, both programmatically and physically. AUF-center would be a place of culture, education and entertainment. The new central station would be the service place, while the new development at Vaterland would be a *natural* link between these two; being a multi-program area with “shops, offices, from social institutions to differentiated functions such as education, hotel, restaurants, etc. – functions that can provide activity also outside the regular working hours.”²⁵⁹

After 1972, the project's aim was to integrate programmatically the Vaterland area into the surrounding city, with the new development as a supplement to the city. All these attempts, from the programmatic integration, to surveying, had reconfigured the way the project had related itself to the city – its relation to the city after 1972 was given through its direct encounter with the local context. If the 1960s proposal acknowledged the city through its larger urban scale and the presence of infrastructural systems (from the notion of the city as an urban center to city as an urbanized field weaved by infrastructure), the 1970s proposal would approach the city through its existing programs – as explicated through the specificity of the given situation. In that instance, the project would move away from appearing as autonomous vis-à-vis its surrounding context, and more towards being complementary with it. Perhaps, that may explain the intention behind images of the city and the surrounding context on the booklet covers in 1972 and 1974. What this entails is that the large-scale was becoming more complex as it was to solve both the infrastructural necessities – the project was dependent on being easily accessible from the transport infrastructure, as well as it was to start engaging the content of the surrounding city. A consequence was that the making of the large-scale would become subjected to an expanding project team: consultants with a special expertise on the urban matters would enter the picture.

The Project and the Immediate Context

The discussion on the project's encounter with the immediate context is inseparable from modernization processes unfolding in the area. Firstly, it relates to the emergence of a new urban scale. Until early 1960s, Vaterland was dominated by three-to-four story blocks, being a typical example of the

259 F.S. Platou in “Vaterland,” A/S Vaterland, September 1972, 1.

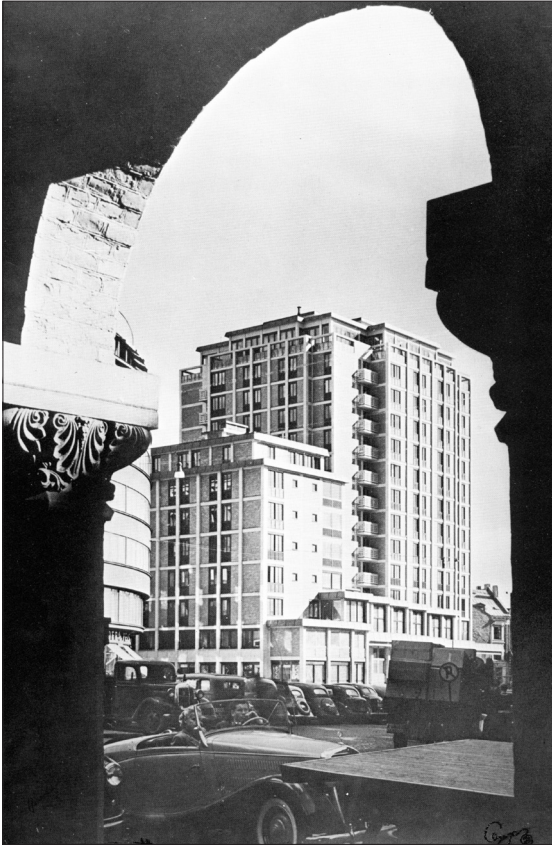
European 19th century urbanity. Projects that would emerge as a product of post-war modernization processes would create a rupture defined by a jump in scale, at the time unknown for Vaterland. These were Knut Knutsen's Viking Hotel from 1950 (91), Jarle Berg's Gunerius Center from 1971 (92) and Rolf Krognæs' Postgirobygget from 1975 (93). In addition, they would introduce verticality and a higher level of density, both of which are typical examples of the 20th century American urbanity. As such, Vaterland would enhance a new role as Oslo's emerging central business district. Secondly, the plans for the new central station would drastically reconfigure the area with the emergence of a new city datum, the so-called cote +9 level. The main level of the future Oslo central station would be raised to the cote +9,²⁶⁰ so that the main railway tunnel connecting east and west would obtain sufficient length to submerge under the city center. This large-scale infrastructural intervention would result in a new urban topography.²⁶¹

Both aspects, that of increasing urban scale and emerging +9-urban topography, functioned as modifying factors for DnC's project encounter with the immediate context. The following analysis will shed light on how these were absorbed, both within the frameworks of the 1960 proposal and the 1970 proposal. I will focus on differences and similarities in the proposals' treatment of these two factors.

The 1960 proposal was explicit in its promotion of the new urban scale. Its conceptual departure was a typical American downtown project consisting of two high-rise towers and a continuous horizontal plinth. Yet, on several levels, Platou's project went much further, as it actively engaged structural complexity within the immediate context. The site itself was a typical urban condition: it consisted of two plots separated by a street with high frequency traffic; beneath the site there was a traversing subway tunnel; the city motorway Nylandsveien conditioned the eastern side with its on-off access ramps; and highly differentiated soil conditions caused alternating depths to the bedrock from 50 to 100 meters. Such a structural complexity demanded that the idea of a downtown shopping project as a generic volume had to be optimized if the project were to effectively function, something that would result in a highly articulated building volume. The relationship between the plinth and the towers was much more organic: the plinth related itself to the height of the adjacent buildings while the towers, one having thirty floors and the other fourteen floors, grew gradually out of it "resulting in a characteristic

²⁶⁰ The city street level is at +6 level (six meters over the sea level).

²⁶¹ In the early 1960s, Håkon Mjelva proposed a design for the downtown area – on the other side of the railway station from Vaterland – in the current district of Bjørvika. His mega-proposal was based on the idea of the a continuous pedestrian level, which would float above the city's infrastructure on the cote +9 and thereby it would incorporate new railway station, new opera, and numerous office towers into a new business and culture district of Bjørvika.



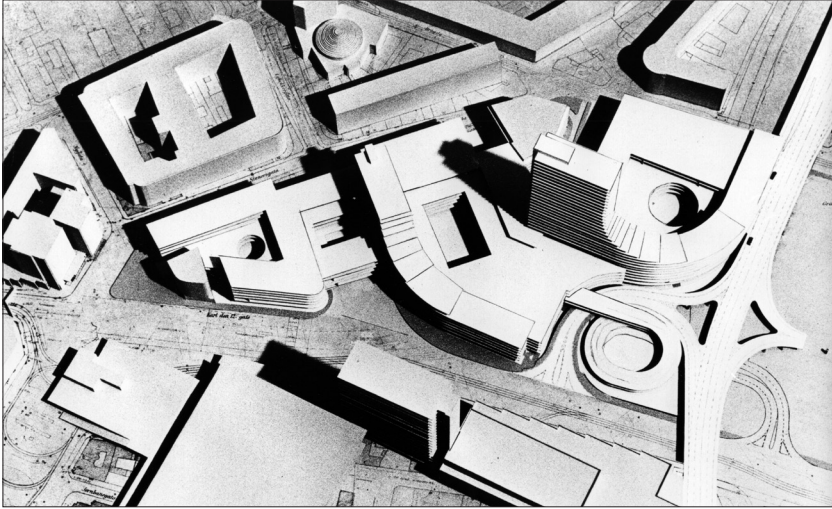
91: Viking Hotel, Knut Knutsen, 1950 (Photo: Oppi).



92: Postgirobygget, Rolf K. Krognnes, completed in 1975 (Photo: Royal Mail Museum).



93: Gunerius, Jarle Berg, 1959–71 (Photo: Knut Andersen & Sønn).



94: Model, the view from top, 1969 (Photo: FSP).



95: Collage, the view from east, 1976 (Illustration: FSP).

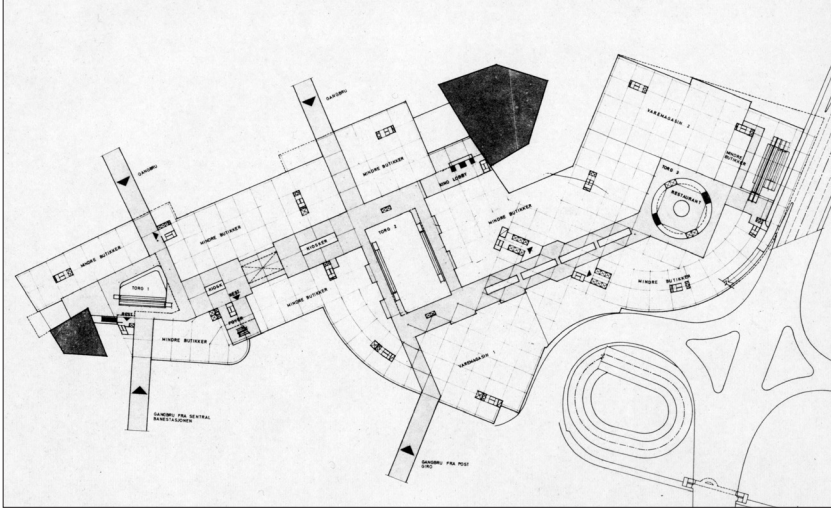
sky-line in the city”.²⁶² The position of the towers was influenced by the position of the underlying bedrock. Their verticality was brought down into the plinth’s interior plazas. The formal liveliness visible in the section was also present in the proposal’s plan: the building volume mostly followed the maximum building limits defined by the plot, yet its footprint was subtly shaped, something that resulted in “a lively and differentiated horizontal ground figure”.²⁶³ The result was a highly articulated form directly informed by the inherent complexity of the immediate context. **(94)** One may clearly see mutation of the modernist vocabulary, for example that of plinth and tower, where formal complexity emerges in the junction between section and plan. Such an articulation and will to shape was undoubtedly a consequence of the influence by the project architect Jan Georg Digerud. Being a Yale student in the early 1960s, he was directly exposed to Paul Rudolph and Louis Kahn; and indirectly to Eero Saarinen.²⁶⁴

The 1970s proposal would appear to be more apologetic towards the project’s immediate context. It was divided into more manageable and independent smaller parts – the project would be a collection of ten different building volumes containing different programs, from office buildings, mixed office and shopping, and hotel. The formal complexity visible in the 1960s proposal would disappear, both in plan and section. Rather, it would be replaced by volumetric simplicity and openness: the project would maintain the plinth-tower organization, but each of these elementary particles would be independent of the other. Paradoxically enough, the project would appear as a generic downtown intervention, despite the public outcry to engage the particularity of the immediate context. As such, it would resemble Stockholm’s Hötorget City **(100)**, an unavoidable reference circulating in the 1960s, with whom Vaterland had a clear ideological and contextual similarity, being an example of a large-scale demolition-redevelopment project through which the processes of modernization radically transformed the center of European cities.

The volumetric articulation as applied in both proposals illustrates changing attitude towards the emerging large-scale. In the 1960s proposal, the project would accentuate it: the narrative of a new skyline was essential in illustrating the potential that such a large-scale endeavor would have on the urban level of the city. In the 1970s proposal, the architect would try to make the project

262 F.S. Platou in “Forslag til regulering,” A/S Vaterland, 1968, 12. These would painstakingly foreshadow the circulating images of the contemporary skyline of Oslo, one offered by Space Group AS in their winning proposal for new Oslo Central Station in 2008, and MAD Architects’ proposal for Entra’s Tulinøkka towers in 2010. 263 *Ibid.*, 12.

264 I would argue that the ideological importance of the spatial dimension as articulated through the medium of section comes from Yale where Digerud was a student. Within such an understanding, an anecdote should be mentioned to illustrate the atmosphere at Paul Rudolph’s studio at Yale. In one of the weekly talks with Rudolph, Digerud presented his student project, showing numerous plans. Rudolph immediately asked about a section drawing, something that Digerud did not have. Rudolph calmly replied: “See you next week Mr. Digerud.” Interview with Jan Georg Digerud and Mirza Mujezinović, 21/05/2015, Oslo.



96: Plan, level 2 (+9 level), 1969 (Drawing: FSP).



97: Plan, level 2 (+9 level), 1976 (Drawing: FSP).

appear smaller, subsequently concealing its large-scale character. This was visible in the presentation techniques, where on one of the images, the project was portrayed as a mirror-like agglomeration of volumes onto which the surrounding city was reflected. (95)

It should be noted that underlying modernist values in terms of accentuated elevated pedestrian movement were present both in 1960s and 1970s proposals. (96–97) This was visible in the project’s unapologetic bridging over the existing street, Lybeckergate, as well as in the project’s effective plugging into the area’s elevated +9 pedestrian level. In the 1960s proposal, the adjoining bridge above Lybeckergate, *Ponte Vecchio* as once called by Engh, turned into an atrium building being five levels tall, with a broad passageway containing kiosks and shops on the second floor and having offices, meeting rooms and car parking on the upper floors – a true collage of programs was facing the atrium.

What was clear with this approach was that the idea of a singular and continuous building was an imperative strong enough to maintain itself in the encounter with the existing street structure of the city. Subsequently, the elevated pedestrian street became a tool through which continuity was introduced in the project – it would connect all three plazas/green gardens within the project simultaneously as it would “exit” the project and connect it with the surrounding projects. A similar approach would be maintained also in the 1970s proposal, but much more downplayed. In the 1970s proposal, Platou referred to the elevated street as the project’s *spine* whose character would be more permanent as opposed to the adjacent volumes whose program could be changed, all in accordance with the changing needs. The elevated street was more of an autonomous element, similar to the walkway systems and skyway bridges occurring in numerous American Central Business District projects of the late 1960s and the early 1970s.²⁶⁵ The bridging over Lybeckergate would be one of such glassed-in elevated crossings.

The new proposal did take the elevated pedestrian street a step further than the proposals from the 1960s. Within the 1970s proposals, it was discussed as a part of a larger system of elevated pedestrian streets within the area. This system would merge the new railway station, Postgiro building, Gunerius shopping center and DnC’s Vaterland development into one continuous pedestrian complex. If the 1960s proposals introduced the elevated street as a way to join two sites into one development, the 1970s proposal used the same elevated pedestrian street to knit the project with the immediate context so that the whole area would be one continuous central business district.

²⁶⁵ Such examples of walkway systems and skyway bridges could be found among others in Minneapolis, Saint Paul, and Cincinnati. A highly illustrative review of these projects may be found in Louis G. Redstone’s *The New Downtowns – Rebuilding Business Districts* (New York: McGraw-Hill Book Company, 1973), 35–45.

Finally, how important was the immediate context in the conceptualization of both proposals? In the 1960s proposal, it was important as a set of structural and infrastructural constraints directly informing the architectural articulation of the large-scale. The importance of the immediate context would appropriate another perspective in the 1970s proposal. The accentuation of the project's relation to the infrastructural systems and the contextual constraints were downplayed, while the project's relationship to the city's programmatic context was accentuated. Instead of being an articulated volume informed by the physical constraints, the 1970s proposal would be turned into a more generic agglomeration of simple volumes that would house programs complementing the surrounding urban context. Therefore, the 1970s proposals had made themselves dependent on the narratives relating to programmatic parameters of the immediate context while the 1960s proposals had made themselves dependent on the narratives relating to the structural and infrastructural parameters within the context. The point where these two perspectives intersect was in the presence of the elevated pedestrian street. In the 1960s proposal, it would function as a *spatial* amalgam fusing the project into one continuous whole, while in the 1970s proposal, it would perform as a part of the local elevated pedestrian network connecting complementary urban programs. The large-scale project had become a product of evolving narratives and their subsequent rationalizations.

The Mode of Organization

On several occasions in the encounter with the politicians and the city's planning authority, the architect and the client portrayed DnC's project as a medium through which the future of Oslo was to emerge.²⁶⁶ The city was in the process of modernization and the project had a capacity due to its location and size to offer new kind of spaces for modern shopping, business and eventual leisure activities. The following analysis addresses both the 1960s and the 1970s proposal as it explores how the architect approached this emerging reality through the project's mode of organization.

An introductory four-point strategy is unavoidable empiric evidence that demonstrates the overarching imperative behind the 1960s proposal. Firstly, the project was to be conceptualized as an introvert air-conditioned shopping center. Secondly, shopping was to be placed on the lower floors having pedestrian streets, plazas and shops. Thirdly, car parking was to be in the proximity of shops and not in separate parking structures. Fourthly, the whole development was to be developed by one investor and under one technical

²⁶⁶ Letter by Johan Melander, December 17, 1971.

leadership while having, as much as possible, one uniform expression.²⁶⁷ It should be noted that the concept of the ‘introvert’ was used as something positive and *futuresque* – without any negative connotations. This would eventually change later in the process.

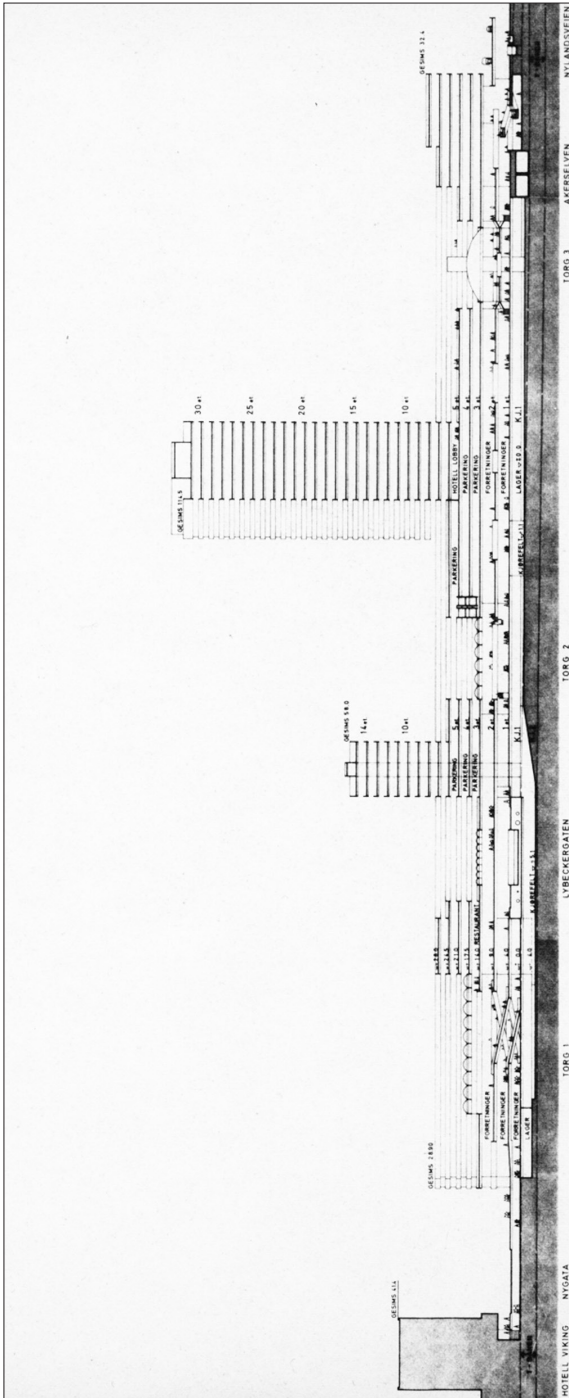
I would argue that this four-point strategy had formulated the very nature of the project: the 1960s proposal as one continuous urban intervention, a (large-scale) uniform building clearly articulated as one architectural object. The idea of an introvert center opened the possibility of one uniform form programmatically independent of its surroundings. As such, it could perform on its own terms, creating a specific interior condition – its own contextuality. As Digerud recalls in the interview, it was “a city within the city”, yet this interiority was to be spatially choreographed, relating to “Le Corbusier’s idea of *promenade architecturale* [arkitektonisk spasertur].”²⁶⁸ (98) When reading the available plans of the proposal, one may see that the future users would experience the full potential of the project’s sectionality while moving through this project: spatial variation orchestrated through different scales and lighting conditions would give a sense of a unique urban space in Oslo. It should be noted that the notions of spatial composition and complexity were some of the guiding ideals in the articulation of architectural form.²⁶⁹

Within such a context, the role of an architect was seen as that of a space gestalter. His field of knowledge created an understanding of underlying complexities (for example infrastructural constraints) to which he was to give form. The architect was a professional with a specific expertise offering *technical leadership*, something that was facilitated through direct contact with the main decision makers, who in this case was DnC’s CEO Melander.²⁷⁰ (99) The large-scale project could, in such a context, be seen as a product of a top-down decision-making approach, being exclusively formulated by a few men

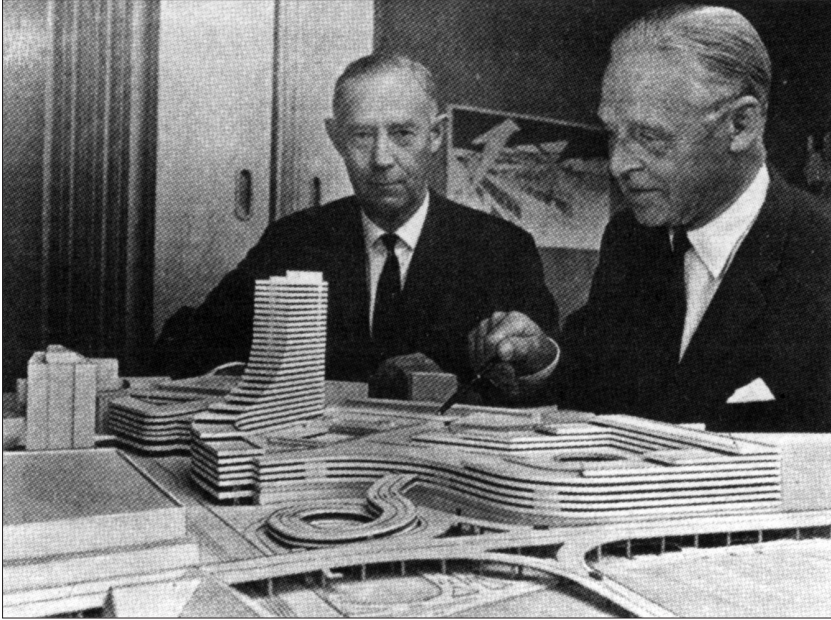
267 F.S. Platou in “Forslag til regulering,” A/S Vaterland, 1968, 2.

268 Digerud explains: “The apparatus and spacious hall give a context that defines one of the project’s corners facing Grønland neighborhood (pointing at the double system of escalators in the ground floor plan, facing the eastern situation). Here people can feel that this is an urban situation. An entrance cannot be just a small hole in the wall. People would get in, be lifted up, enter a geometric space, cross bridges, walk bellow skylight, get down, things are differentiated. When I see it now, it reminds me of things that Kahn would have made, it is not that strange because he was my big hero. These plazas are all different; one may be compared to piazza Navona, the other with the piazza in front of Pantheon. I knew these references, I walked there. I searched for spatial variation in this long intestine. In addition, I had Le Corbusier in my pocket. He talked about architectural stroll. All his houses are his city plans.” Interview with Jan Georg Digerud and Mirza Mujezinović, 21/05/2015, Oslo. 269 Digerud mentioned Robert Venturi as one of the main influences affecting his approach to architecture and planning.

270 The director of Vaterland A/S, Erik Gjems-Onstad, a Supreme Court lawyer and a former WWII hero, resigned due to the collaboration difficulties with architect Platou, something that reflected the powerful position that the architect had at the time. It should also be noted that DnC hired OPAK, a building administration and facilitating consultancy firm, to assist with project management in the late 1960s, an assignment that previously was the responsibility of the architect. The project architect, Jan Georg Digerud, recalls that this was a kind of a setback, as OPAK would perform as a mediator between the bank and the architect. Before it was direct contact between CEO Melander and the architects Platou and Digerud. OPAK would also use considerable part of the budget. Interview with Jan Georg Digerud and Mirza Mujezinović, 21/05/2015, Oslo.



98: Longitudinal section A-A, 1969 (Drawing: FSP).



99: The architect and the client. F.S. Platou and Johan Melander, the late 1960s (Photo: Unknown).



100: Stockholm's Plan Commissioner, Sven Markelius, working on the model for Hötorget City – an important reference for DnC's Vaterland plans, 1954. (Photo: Unknown).

with relatively good relations with the political establishment and planning authorities. They were the ones who would be in position to formulate on behalf of the society what the project's benefit was to be, "for the pleasure of people and the city itself".²⁷¹ Subsequently, they were to provide imaginaries within which "the city has a chance to focus on the future".²⁷² That may be a challenging role since the project, due to its large size, would not only have an impact on the city, but on the country as a whole.²⁷³ Within such a context, the four-point strategy would offer a coherent and seducing image. The project would be a climatically independent architectural large-scale object where one would be in a perfectly tempered environment "walking from narrow and intimate pedestrian streets being subjected to richness of impressions on both sides of street, thereafter one would be lead into spacious plazas where customers would get an overview and a chance to orientate themselves".²⁷⁴

It is clear that the suggested narrative would offer a proposal contrasting the existing city, far from being troubled by unresolved infrastructural congestion, poor building standard, etc. Still, Platou did somewhat modify the textual descriptions of the 1960s proposals in order to engage with the city analogy. From the 1968 proposal to 1969 proposal, he would continually replace the terms "shopping center" with "shopping area/milieu", "introvert structure" with "structure with human scale", "city's business life" with "city's life", "pleasant business milieu at Vaterland" with "pleasant milieu at Vaterland". These shy textual changes would soften the language, but it was the same project, though even a bit larger. These were just foreshadowing the reformulation of the project that would happen a couple of years later.

After several smaller modifications, the project was turned inside out in 1972, despite the fact that it was pending to be presented to the municipal council for the final approval after being accepted in the municipal planning board one year earlier. This change was a consequence of the pressure that was sparked three years earlier by the aforementioned youth action "Et sted å være". In its aftermath, a series of critical newspaper articles was published, something that would also start changing public opinion around the project. The critique itself was two-fold, similar to the one coming from *Ammerud Report*: on one side, it went against the project's architecture (its structural

271 F.S. Platou in "Forslag til regulering," A/S Vaterland, 1968, 13.

272 Ibid., 13.

273 The project would also be discussed in the national parliament. On April 16, 1969, Finn Gustavsen (SF) submitted interpellation where he asked the government about its attitude towards the Vaterland plans that included 400 million NOK shopping center. Gustavsen questioned the size of the new development since it was seen as being too big and therefore against current state policies of preserving the provinces (*distriktpolitikk*). In Gustavsen's view, such a project would drain the provincial parts of Norway since it would absorb a large amount of capital. The consequences would be de-population in the provinces and further centralization within the urban areas. It should be noted that at the time the government controlled the building production – each of the municipalities would get building permit quota issued by the central government.

274 F.S. Platou in "Forslag til regulering," A/S Vaterland, 1968, 13.

and programmatic framework), and on the other, it went against the planning procedures facilitating the project.

An unavoidable example was KANAL's alternative proposal for Vaterland presented in newspaper *Arbeiderbaldet* on April 10, 1969. This plan contained housing,²⁷⁵ service programs and leisure, while shops and offices were disregarded as these were seen to belong to urban outskirts. In the follow-up article "Derfor må vi si nei til Vaterland!" [Therefore we need to say no to Vaterland!] published in *Dagbladet* on the April 26, written by KANAL members Inger Beaty-Pownall, Jan Carlsen, Jon Guttu and Sverre Nistov, a system critique was projected urging for democratization of planning practices and accentuation of people's needs and interests. In the same article, DnC's project was seen as an undesirable finalized product. In addition, there were several other critical articles, among others one by Jan Carlsen published in *Dagbladet* on August 17, 1970, and Ole Fredrik Stoveland's in *Aftenposten* on November 25, both of which went frontally against the DnC's plans. The former went against the project's 'introvertedness', while the latter claimed that the project was an example of how *not* to conduct the development of the city. The medial critique would start affecting the process. On one side, a resistance against the project would appear among politicians,²⁷⁶ and on the other, the insecurity within the project team would move the project in another direction.

As appearing in the critique, changing ideals in architecture and planning would entail the center of the city enhancing other programs than commerce and business. Leisure and housing would be some of these. The *introvert* would have negative connotations. Still, within the project team, this was not

275 According to KANAL, Platou's project contained luxury apartments, while their proposal advocated more affordable ones for a broader population segment. From the available drawing material showing the 1969 iteration of the project, it is difficult to identify to what degree these apartments were luxury, as the plans show general distribution of vertical shafts and horizontal common communication areas. What is readable is that the housing scheme was potentially based on duplex type - a housing typology already used in the project's neighborhood at Enerhaugen Housing (initiated in 1961, completed in 1965, by architect Sofus Haugen). It should be also noted that DnC tried to get a housing subsidy from Husbanken. This application was rejected, not because of the luxurious size of apartments, but because of several other reasons. The construction cost was much higher as the housing part of the project was a high-rise. It would be also difficult for families with children to live in such a context. In addition, Husbanken was negative towards the fact that the project's housing part was integrated and inseparable from the large volume. Husbanken's subsidies were given to projects that were legally and physically independent entities, something that would make ownership rights and maintenance responsibilities more clear. In the same reply letter from Husbanken, it comes forth that there were 443 apartment units. Husbanken's letter April 8, 1970.

276 When the consultants from "Institut for Centerplanlægning" came to Oslo to do the mapping of the situation for DnC's project they also met with the SF politicians, among others Mr. Mauseth (for more see to Per Eggum Mauseth, *Oslo bak fasaden* (Oslo: Pax Forlag, 1991), 30–34). It is necessary to mention that the left wing socialist party, Sosialistisk Folkeparti (SF) was very active in disclaiming the project. Peter Butenschon, at the time assistant professor at the Oslo School of Architecture, was invited by the SF politician Per Eggum Mauseth to participate in the work of the SF group whose aim was to stop DnC's Vaterland project. Interview with Peter Butenschon and Mirza Mujezinović, 08/12/2011, Oslo.

fully understood.²⁷⁷

The 1970s proposal would function as a volumetric strategy, foreshadowing future negotiation planning processes. It did not have a finite form; rather it was an agglomeration of generic volumes capable of being modified. Firstly, it was planned so that eventual programmatic alterations could be done during the design development process – the depth of building volumes was such that they could house different programs. Secondly, the project was to be implemented in independent stages having freestanding buildings with different programs. If the 1960s proposal belonged to a modernist set of ideas, the 1970s proposal was clearly influenced by the emerging aspirations as appearing within the realm of urban design.²⁷⁸ It would articulate different pedestrian zones on both the interior and exterior; it would integrate nature in the project; as well as it would start relating to the urban structure of the surrounding context. The project was becoming a *place*.

As such, the 1972 proposal enhanced a different type of complexity, as well as it started becoming apparently more open and flexible towards the eventual changing conditions unfolding in the immediate future. The above-mentioned atmosphere of doubt was making itself apparent also in the space production practice. On the representational level, there was a visible change. The 1960s proposal's presentation contained purely a professional representation repertoire: simple monochrome plans, sections, elevations and model photos. The 1970s proposal's representation would become more understandable by broader public and politicians. The architect presented also images of Oslo, where the view of the existing context was seen as a quality.

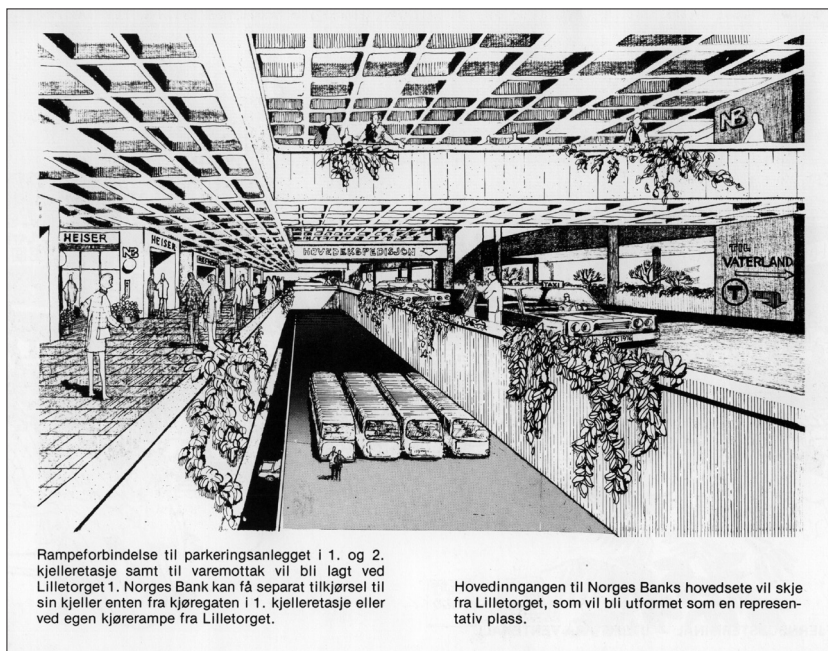
This appreciation of the city was also translated into the drawings – the plan drawings had included the surrounding context and its spatial-programmatic continuities. The existing city was added to the street renderings, interestingly enough it was only the high-rises in the neighborhood that would be visible: the Postgiro building and Viking Hotel. (101–102) Here, one may still see the remnants of the 1960s proposal: the elevated pedestrian streets hovering above the city streets and connecting the project with other developments in the area. What was accentuated in the perspective drawings was the softness of everyday situations – people were everywhere; there were signs showing shops and directions – an optimistic feeling of an emerging urban energy was evident. (103–104) This was also accentuated in the main description of the

²⁷⁷ The misunderstanding of the emerging contemporaneity within the project team, may be seen in Ole Borge's critique against the reformulation of the project: "I do not understand why leisure necessarily needs to be added to the same areas where serious labor functions are to be performed. I doubt in the social benefit of bringing people with leisure problems to the center of the city." Ole Borge was the Supreme Court lawyer and the business manager of the Index building, one of two existing buildings adjacent to the project. Francis Sejersted, "Hvem kan redde city? Vaterlandprosjektet 1954–1979," *Fosfor*, no. 21, May 1990 (TMV-senteret/University of Oslo), 20.

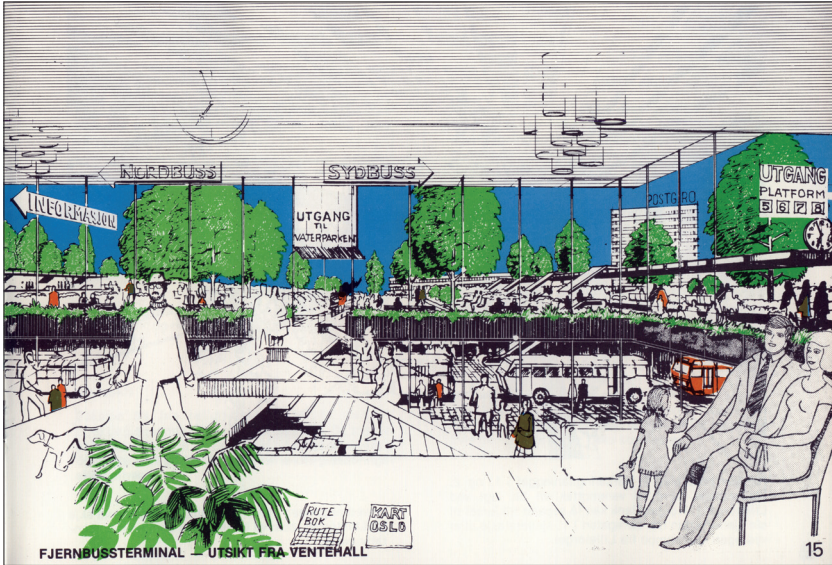
²⁷⁸ This is something that Platou was well aware. Adjoined with his son, who was studying architecture in the US, Platou and his team were on a study trip to Baltimore and Chicago in the early 1970s. Interview Jon Platou and Mirza Mujezinović, 15/11/2011, Oslo.



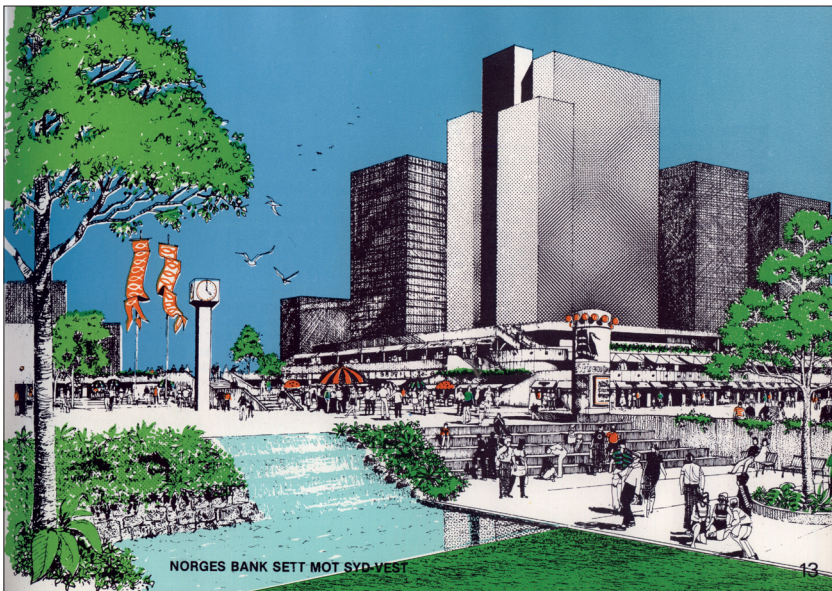
101: View from Stenersgate, 1976 (Facsimile: "Vaterland", F.S.Platou, page 6).



102: Bus Terminal, 1976 (Facsimile: "Vaterland", F.S.Platou, page 16).



103: Bus Terminal, waiting area, 1976 (Illustration: FSP).



104: Street view from Brugata, 1976 (Illustration: FSP).

project intentions: “Vaterland was to be proposed as mixed use area, something that would offer a differentiated environment and an open human-friendly character.”²⁷⁹

The transformation of the project from an architectural form (along with its spatial repertoire) into a strategy (along with its procedural flexibility) would signal a new reality for the large-scale developments. The issue of change and the ability of the project to absorb change were central. One could therefore assume that the fragmentation of the large-scale into parts that are more manageable was a tool to navigate within such a context. The “big” plan as an architecture was to be abolished – a strategy suggesting several smaller interrelated entities would replace the big unison project - where each of these would absorb their portion of overall current spatial needs, financial risks and political bargaining. Such a distribution of the overall performance would result in a project whose success was not measured by its formal and spatial particularity, but by its ability to translate this instantaneous multiplicity into a physical structure, and within such a context, the image of the existing city would serve as an operative analogy.

The Infrastructural Principles

When comparing different iterations, there is a noticeable imbalance in terms of the material explaining infrastructural matters. In the 1960s proposal, it was one of the main issues and most of the project description was dedicated to explain how the project had solved infrastructural demands from pedestrian movement, parking to the internal servicing. In the 1970s proposal, the issue of infrastructure principles would be just one of several equally important issues within the project being discussed on a more general level. The following analysis will examine how the issue of infrastructure was incorporated into the architecture of the project.

In the 1960s proposal, the notion of infrastructure was approached in terms of servicing, parking and pedestrian movement. The way the architect encountered these was colored by an expertise-based attitude relatable to the above-mentioned notion of a unison technical leadership within the project. Digurd mentions in the interview that solving infrastructure was essential in making the large-scale function, and that was something that he had in the baggage when returning from the US.²⁸⁰ Firstly, a part of education from Yale and Washington University included infrastructure and highway engineering. Secondly, the experience from “Skidmore, Owens & Merrill” architectural practice made him aware of the complexities relating to big projects, for

²⁷⁹ F.S. Platou in “Norges Bank,” A/S Vaterland, 1976, 6.

²⁸⁰ Interview with Jan Georg Digerud and Mirza Mujezinović, 21/05/2015, Oslo.

example understanding of the necessary infrastructure logistic in the high-rise buildings (in terms of number of elevators, relationship between rentable space and infrastructural space, etc.).²⁸¹

This was especially visible in how the issues of delivery and parking were solved. All supply vehicles would enter the logistical basement of some 30,000 m² with a height of 3.8 meters, through a system of ramps leading from Stenersgate. **(105)** Thereafter they would access a central drive-through corridor, and finally would arrive to the off-loading areas below the interior plazas.²⁸² When taken to the upper floors, the goods would be moved in the service corridor along the building's outer perimeter to the needed vertical connection and thereafter would be delivered to the right location. This service corridor was also as a place for the main piping and channeling, allowing direct control and inspection of the installations.

The architect had acknowledged in the project description that parking was an essential part of the life of a shopping-business center and therefore it was to be treated with special interest.²⁸³ The calculations had shown that the project was to have a capacity of approximately 2,000 parking places. The position of parking was dictated by its relation to the shops and businesses. Vaterland project was to be seen as a stark contrast to the ineffective shopping context within the existing city center of Oslo – it was to provide enough parking and effective access to shops and other businesses.²⁸⁴ Due to the high water pressure in the ground, it was difficult to have more than one basement level. **(106)** Subsequently, parking was placed on the three upper floors, sandwiched between shopping and offices/hotel.²⁸⁵ Parking would be visible from beneath, from the interior plazas, and being a part of something that would give a sectional condition unknown for the context in Oslo, a collage of car and pedestrian realities: one could see shops, pedestrian galleries, offices, and parking, vertically layered in the foreground while the bold high-rises would

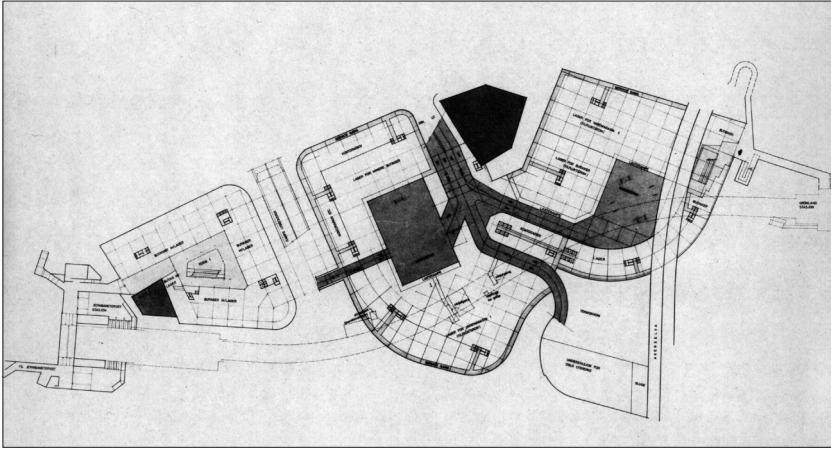
281 Digerud's input from the interview on the issue of infrastructure is highly valuable, as it touches the dialectical relationship between architecture and infrastructure. Still, the overall empiric material comes up short in giving a more complete picture of who else was central in relation to the infrastructural solutions in such a large project as Vaterland. One should also keep in mind that within F.S. Platou's corporation, there was planning firm Norconsult, who might have played a role of consultant. Per Eggum Mausest writes that monthly design expenses for the project were around 500,000 NOK spent by "a large architecture office and numerous specialists". Per Eggum Mausest, *Oslo bak fasaden* (Oslo: Pax Forlag, 1991), 31.

282 Perhaps, the biggest problem was to distribute the goods to the stores that were at the western plaza – plaza I, on the other side of Lybeckergate. A conveyer transport belt system in the basement level, would connect the plaza II to plaza I, running bellow Lybeckergate.

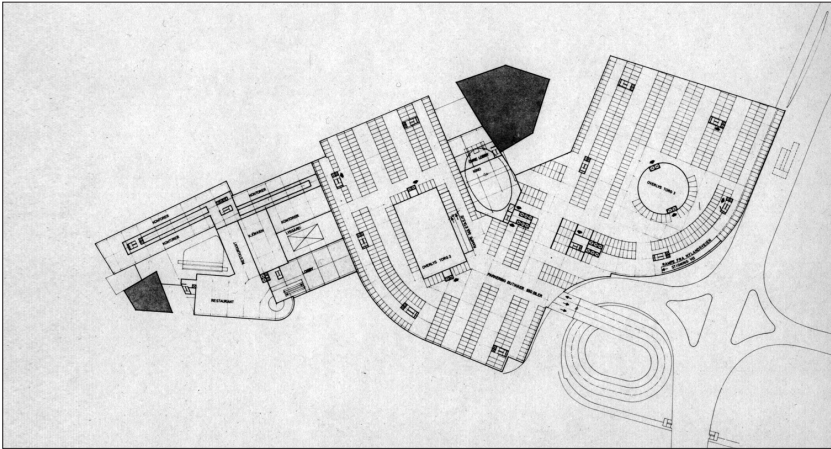
283 F.S. Platou in "Forslag til regulering", A/S Vaterland, 1968, 5.

284 The chaotic infrastructural condition, within which the center of Oslo was at the time, was portrayed in the educational movie "Plass til en bil?" directed by Tore Amundsen for Oslo Kinematografer and Trafikksjefen in 1963.

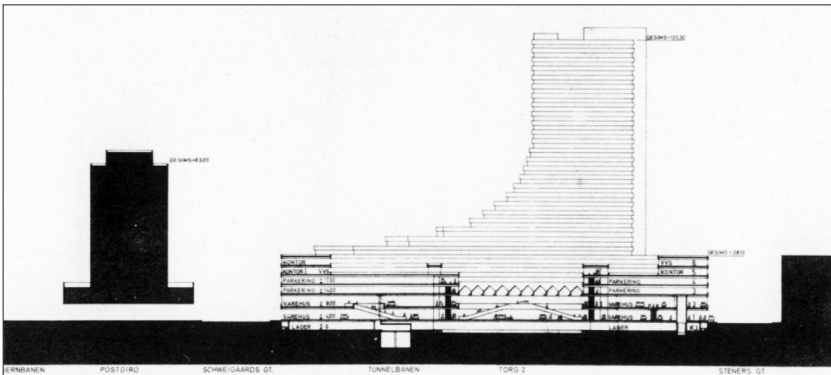
285 The two main parking floors were the third and fourth levels with approximately 840 places each, while the fifth level was partially reserved for parking with some 340 places, being adjacent to hotel lobby accessible through a large roof garden, offices and bowling hall. The third and fourth levels were directly accessible from the outside through a heroic ramp system, while the fifth parking level was accessed from within, from the fourth level. In the 1968 proposal, the access to the fifth level was designed through an elegant system of ramps going above the eastern plaza – plaza III, while the 1969 proposal would change this by placing the ramp more internally within the floor plate.



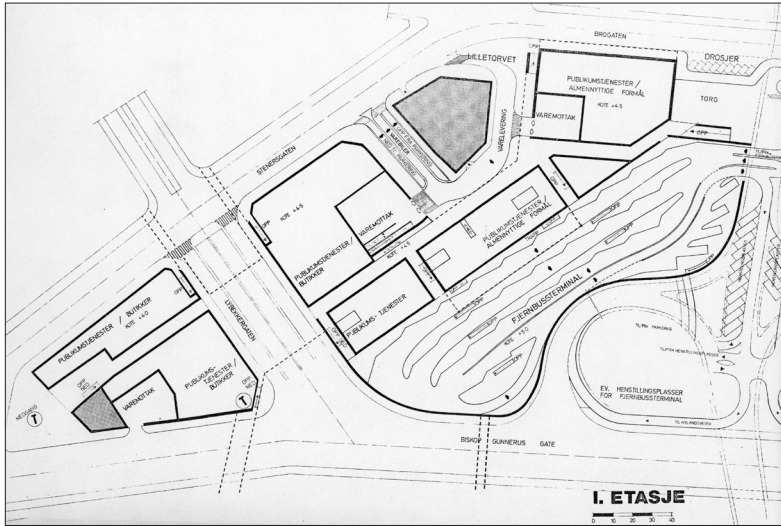
105: Basement plan, 1969 (Drawing: FSP).



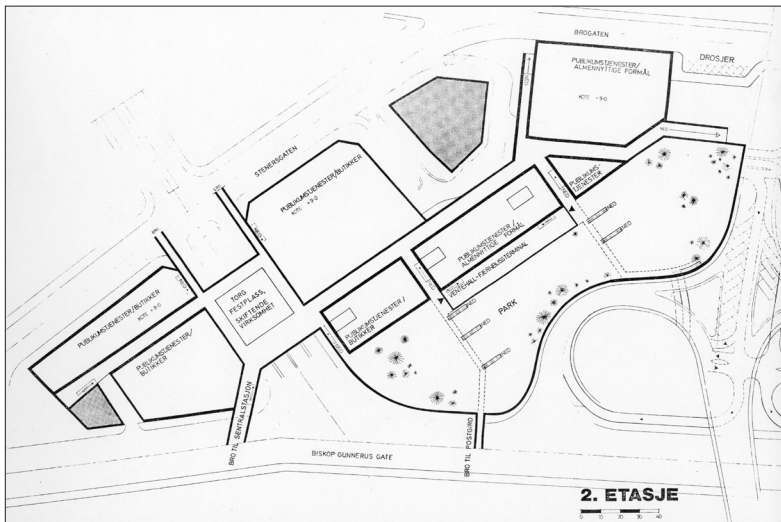
106: Plan parking, level 3, 1969 (Drawing: FSP).



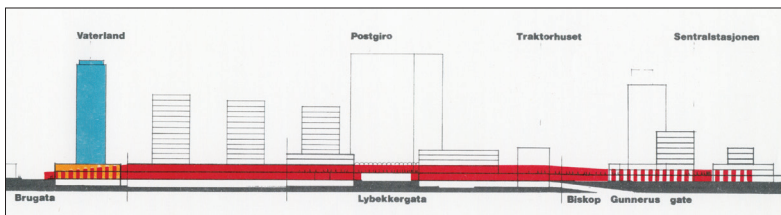
107: Cross section, 1968 (Drawing: FSP).



108: Plan, level 1, 1974 (Drawing: FSP).



109: Plan, level 2, 1974 (Drawing: FSP).



110: Longitudinal section, 1972 (Drawing: FSP).

appear in the background.²⁸⁶ (107) In the conversation with Digerud, Louis Kahn's Philadelphia study from 1962 came as a reference, being a way to approach infrastructure as an architectural problem.

It is clear that the issue of infrastructure was present both before and after 1972. Perhaps, what differed was the image that the project tried to project – it had downplayed the importance and presence of infrastructure, where infrastructure would become just one of many aspects to be solved. The area calculus for the 1970s proposal dealt exclusively with the size of volumes within the project, and not with the programmatic split between usable/rentable and infrastructural space, and their mutual interdependency. The project descriptions did not go any further either in explaining how the infrastructure would be solved on the level of the whole project despite the fact that a big and important infrastructural program was added. The city's main bus terminal would be placed on the ground floor facing the Nylandsvaien motorway and Biskop Gunnersgate. Its roof was turned into a green park. (108–109) Infrastructure was to be concealed and subsequently softened despite its large size. This was also visible in the project renderings where the presence of vegetation was a leitmotif of the new emerging urbanity.²⁸⁷

Still, the pedestrian street would remain as an atavism of the previous approach – a significant infrastructural element impossible to eliminate also in the 1970s proposal. In addition, one may question if the nature of the project really changed in re-conceptualization during the early 1970s, precisely since the pedestrian elevated street remained as the main structuring element of the project – *the spine in the air*. Before 1972, the pedestrian street was articulated as a part of the grand form of the project. After 1972, it would become visible as an independent element, equally permanent and dependent on the fact that the project had to be built in its totality so that the elevated street was to function both as an infrastructure and as an urban space. (110) It could not be fragmented since it was to provide also a continuous access from/to the adjoining building volumes, as it belonged as much to the immediate context as to the project itself. It was much more of a physical artifact than what was the glassed-in pedestrian street suggested by Henning Larsen at Dragvoll at the same time. The elevated street was also supplemented with a pedestrian street on the ground level. It was running just beneath it with a direct access to the adjacent streets, offering a more gracious entrance from the street level than how it was in the 1960s proposal where the entrances into the project happened through the stores following the frontage.

²⁸⁶ Interview with Jan Georg Digerud and Mirza Mujezinović, 21/05/2015, Oslo.

²⁸⁷ This was more of a programmatic discussion. The bus terminal area was to be exempted from the land lease contract, but it would still be part of the project's overall massing. The idea of the bus terminal would survive the project and would re-appear in the 1980s Vaterland project by LPO.

The analysis has unveiled a changing attitude to the infrastructural narrative. The 1960s proposal shows clearly the architect's attitude to the question of infrastructure: infrastructure had its own spatial footprint and logic necessary for the overarching performance of the large-scale architecture. This revolved around infrastructure as an absolute quantitative parameter where the scale of infrastructure was given by the scale of the project.²⁸⁸ The area calculus of the 1960s proposal had been structured through the matrix of floors and their usage with four main programmatic groups: areas for rent (shops, offices, hotel, cinema, bowling, gym), areas for air-condition installations, areas for traffic (pedestrian and car circulation, including parking) and areas for storage. It is indicative to point out that the ratio between net rentable space and supporting space was almost 50–50, for each square meter of usable/rentable space the project needed one square meter of “infrastructural” space.

Infrastructural narratives were important because they reflected the project's effective performance, and as such indirectly indicated how modern the project was. In the 1970s proposal, infrastructure as one of the modifying factors was still present, but discussions on its performance were secondary, as other overarching narratives were of greater importance, such as those relating to the surrounding context and pedestrian realm (as described in the previous thematic review on the project's mode of organization). Infrastructure was becoming ‘naturalized’ as something that was intrinsically solved within the project, while narratives relating to soft values would start emerging as leitmotif of urban discussions.

Struktur/Structure

As mentioned before, the period during which the project unfolded was the time of change where the post-war predictability in terms of economy, politics and social structures was replaced by the emerging era of doubt. The following analysis addresses how this new condition affected the Vaterland project. This discussion revolves around the notion of *struktur* on one side and *grand form* on the other. The former relates to a morphological framework, facilitating a possibility of multiple configurations where all of which adhere to the same zoning envelope. The latter refers to the idea of one singular large-scale form as an envelope making possible only one particular formal constellation. The Vaterland project was a large-scale development, but both iterations, the 1960s proposal and the 1970s proposal, functioned in varying degrees, both as a *grand form* and as a *struktur*. This analysis will unfold what implications such a duality had on the project itself and its architecture.

²⁸⁸ In the largest scenario from 1969, it would be approximately 130,000 m² of rentable space and 130,000 m² of infrastructural space.

The 1960s proposal exploited the site to its maximum, suggesting the building volume, which followed the site's perimeter in its first six stories. (111) The architect had to resort to architectural interventions such as introduction of plazas, pedestrian streets and skylights, to grant access and spatial quality within the deep interior (for example to bring daylight). The interior and exterior were disengaged as the project's very nature was formulated through the idea of a big introvert box where the exterior would become permanent and fixed. Furthermore, the interior would be just one open space, ready to be divided in different zones and injected with different programs: it would become the bearer of project's flexibility. This directly relates to Platou's statement "the dynamic businesses of our time needed elastic buildings consisting of a big and permanent outside envelope which on the interior should be flexible to its maximum".²⁸⁹ (113–114)

Still, the question is how this apparent interdependency between the permanent outside and the flexible inside was translated in the project itself. Here, Digerud choses to claim that the project was a collective form having different scales.²⁹⁰ By reviewing the project drawings, it is difficult to see clearly the components of this presumed collective form to which Digerud refers to, as the project itself looked like and performed as one uniform building volume. The project's programmatic content was articulated through vertical layering: different programs were placed on top of each other as opposed to next to each other as interdependent volumes within a collective form. Oddly enough, Digerud refers to the project:

As a city in itself, being a city within another city – Oslo. As such, the project was a piece of the city that through its form took into account the existing context, for example being lower at some places and taller elsewhere. It is a *Struktur* that was improvised. Improvisation is meaningless unless there is an underlying structure. If you repeat structure then it is boredom and monotony that take over.²⁹¹

The notion of *Struktur* is present in Digerud's conceptual vocabulary, but here it is understood purely in formal terms: it is approached through its improvisation potential as something informing the design process itself where one particular form is a residue after infrastructural and contextual constraints were solved. The capacity of this *Struktur* to create flexibility in terms of different possible programmatic and developmental scenarios encountering the above-mentioned issue of unpredictability was rather unclear. For example,

²⁸⁹ Note from F.S. Platou, November 25, 1969. This reference comes from Francis Sejersted's "Hvem kan redde city? Vaterlandprosjektet 1954–1979," in *Fosfor*, TMV-senteret/University of Oslo, no. 21, May 1990.

²⁹⁰ Interview with Jan Georg Digerud and Mirza Mujezinović, 21/05/2015, Oslo.

²⁹¹ Interview with Jan Georg Digerud and Mirza Mujezinović, 21/05/2015, Oslo.

in the textual descriptions of the 1960s proposal, the architect had one chapter dealing with flexibility. Here, he discussed the structural model of the project, which was to be based on the 9.6 x 9.6 meters module. This setup could absorb grid sizes needed for a rational space use for both parking, shops, offices and supply – and therefore it would allow sectional layering of different programs. Here, the architect eventually mentioned that modular concrete prefabs were to be used for beams, columns and slabs. Within such a setup, walls could be moved; stairs and vertical communication could be taken away and be placed in other position. Anything was possible within this highly general description. As the available empiric material shows, Platou did not provide any elaborate spatial strategy for how this could be structurally managed – such a strategy would demand a more proactive approach towards the problematic issue of deep floor plates and how these could be optimized for different uses.

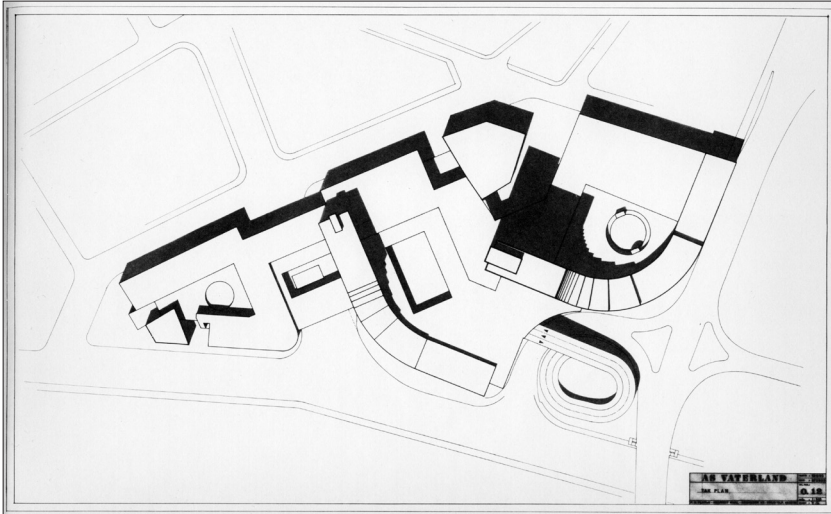
Still, one may argue that the project was a *Struktur* with a certain degree of flexibility due to its grand size: being a 260,000 m² structure where 8,400 people would work, shop, and live.²⁹² Being a city within the city, it was big enough so that it would constantly be in a state of perpetual change. The fact that contextualizes its sheer size is its shopping area of 50,000 m², something that would increase the shopping capacity of Oslo center by 30%.²⁹³ The project did not offer a substantial operative strategy to facilitate potentially different programmatic scenarios within the given zoning envelope. Such an approach was something that was in the making at the time – the sensibility towards changing economic conditions was slowly getting its material translations as the architecture culture encountered these issues, something visible in Larsen's project at Dragvoll. Platou's 1960s proposal presumed a context with no ruptures in economy and with constant social conditions.

After 1972, the project would be divided into ten different sub-projects varying in size with each volume having one particular program, as well as it would offer one big open public space on the roof of the bus terminal along with a plaza facing Grønland subway station. **(112)** The reason for this change was increasing public and political critique, as well as the recommendations by "Institutt for Center-planlægning" who also prompted their own proposal to the bank. There was a change in the attitude, as the accentuation of the outdoor qualities was made more apparent, still the elevated pedestrian street, which would also connect to the neighboring projects, would hold the project together.

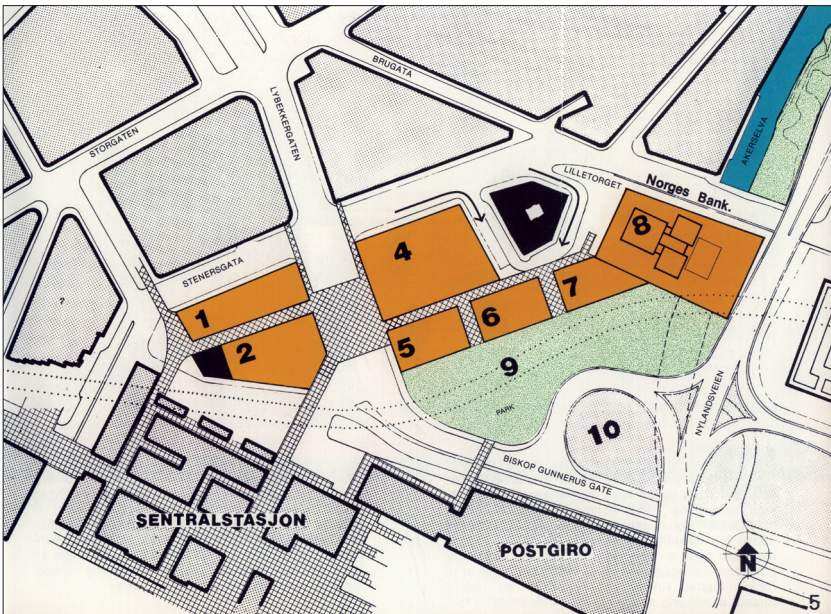
The question, which emerges, is whether the project had optimized its capacity to absorb the changes through this reformulation. What is clear

292 Letter, Sak 13, Byplankontoret, distriktsarkitekt Caspar Tornøe, "Beskrivelse av prosjektet," 1970, 42.

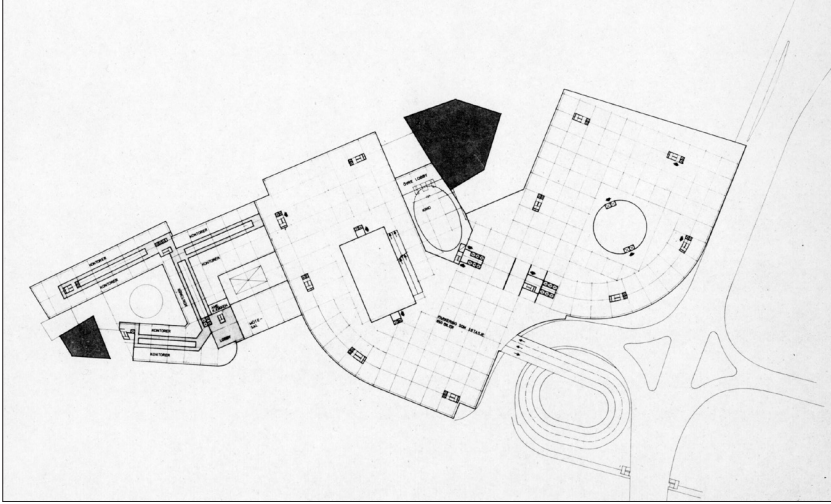
293 Francis Sejersted, "Hvem kan redde city? Vaterlandprosjektet 1954–1979," *Fosfor*, TMV-senteret/University of Oslo, no. 21, May 1990, 15.



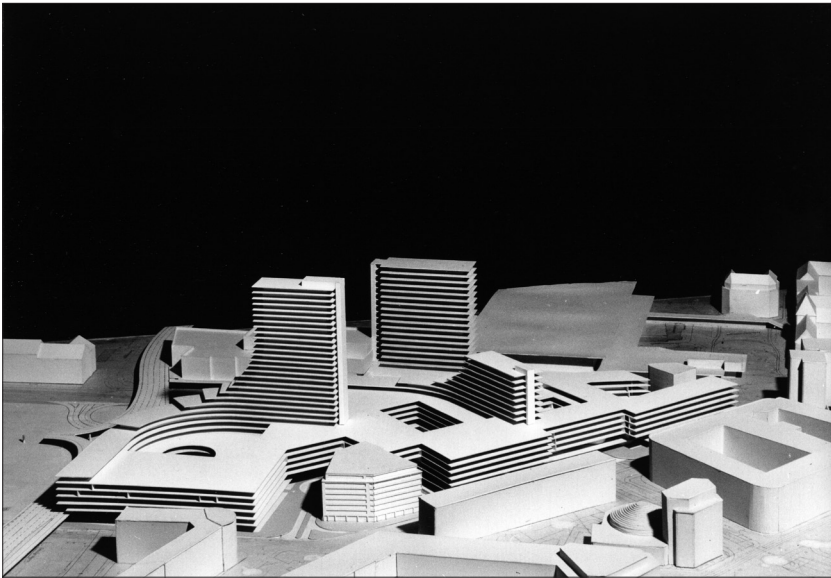
111: Plan, roof, 1969 (Drawing: FSP).



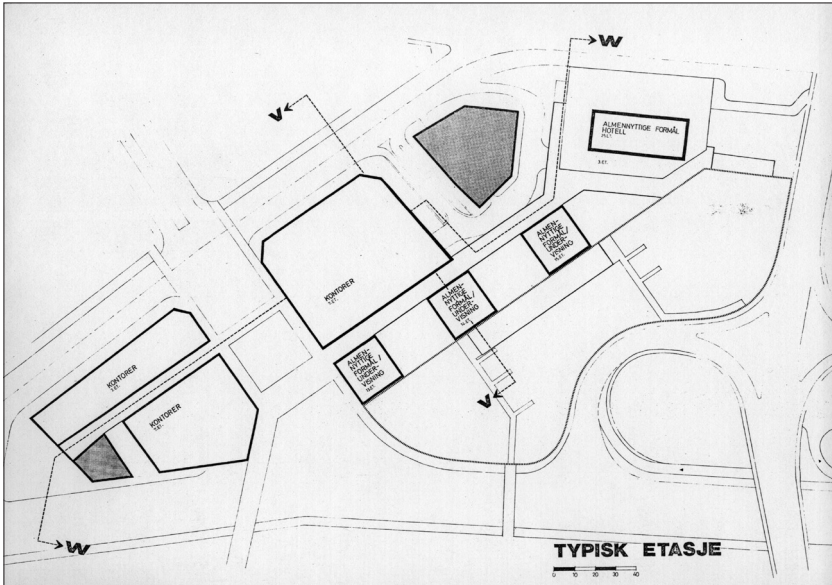
112: Plan, roof, 1976 (Drawing: FSP).



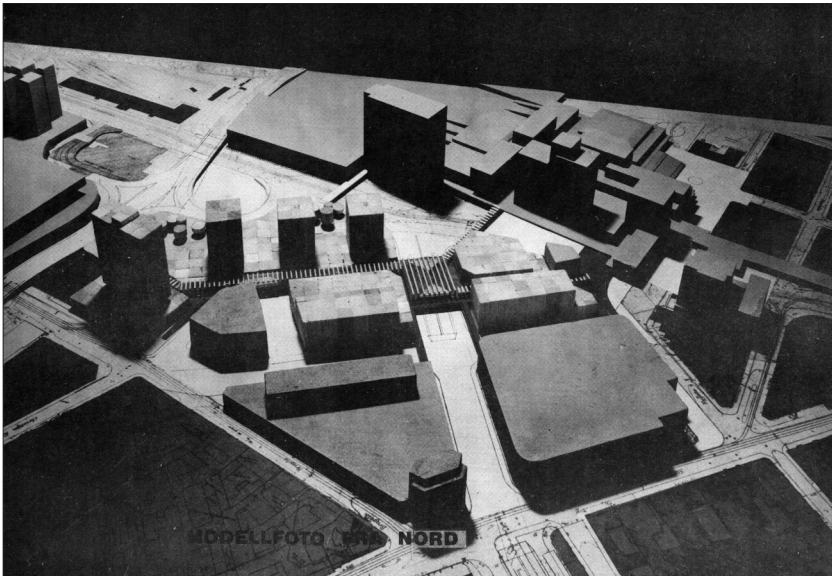
113: Plan, level 4 – typical plan, 1969 (Drawing: FSP).



114: Model, the view from north-east, 1969 (Drawing: FSP).



115: Plan, typical plan, 1974 (Drawing: FSP).



116: Model, the view from north, 1974 (Drawing: FSP).

is that by reducing the project by 100,000 m², to some 175,000 m² (where “only” 130,000 m² would be above ground), the issue of volume depth was reformulated: the fragmented volumes were manageable in terms of the size of their floor plates and therefore could be more flexible in terms of programs, which they could house. Each of the zones would become its own project consisting of a “plinth and high-rise”. Some of the sub-projects would share the same plinth. (115–116) Here, one may question whether the 1972 reformulation had made the project more of a *struktur* – a morphological framework that opens possibility of multiple configurations. On one hand, it did not precisely since the fragmentation of the project into the sub-projects perhaps went too far. One could argue that suggested sub-projects were too small to enhance the possibility of multiple configurations, which could absorb the outside fluctuations, either those of market or the changing political conditions. These were more on the level of singular buildings whose volumes were too defined, and perhaps too binding in terms of the totality of the project. On the other hand, one could argue that the overall fragmentation of the project did offer spatial variation needed for the fluctuating times, precisely since some of the sub-projects could be joined, those that shared the same plinth base, and as such, could provide a framework, which would function under different economic and political contexts.

Undoubtedly, one of the reasons for the project’s demise was its unresolved ideological position. Its transformation from being a *grand form* into a *struktur*, had come too short – at the beginning of the process, the project had a clear ideological position, being a large-scale introvert, air-conditioned box connected to the city’s infrastructural network. It should be noted that such a terminology accentuating the project’s “introvertedness” was not considered as negative, rather it promoted an ideal which was valid in the 1960s.²⁹⁴ During the 1970s, this ideal would falter as ideas from Jane Jacobs, Jan Gehl, among others, would start to circulate and make themselves more operative. As it was reformulated in 1972, the project entered unclear territory where it denied its ideological origins at the same time as it was thrown into an unknown reality, which was also in its making – the reality where the project had to be able to absorb both the political bargaining, changing economic prerequisites and participatory processes. If the project were to manage this, it had to be more of a morphological framework, *struktur*, and less of a *grand form*. Architecture

294 Despite the accentuation of the project’s presumed introvert nature, the 1960s proposal had also a clearly defined relation to the city’s streetscape. On its ground floor, there was a continuous department store (*varemagasin*) with differentiated shops having a direct access both to the outside streets and to the interior central space, “the new Karl Johan” as referred by Digerud. In the interview, he uses the context of Manhattan’s 5th avenue to describe the encounter between the department store and city’s sidewalks, where juxtaposition of frequent vehicular traffic and pedestrian sidewalks was not seen as an opposition to the well-functioning urban context. It should be noted that the reference of “Manhattan’s 5th avenue” does not appear in any other empiric material. Interview with Jan Georg Digerud and Mirza Mujezinović, 21/05/2015, Oslo.

culture would have to wait until the 1980s when this new reality would get its physical translations. In that sense, Vaterland project was a worthy trial.

Developmental Possibilities

DnC's Vaterland project was a large-scale building. Before 1972, the project's size went from 130,000 m² to 260,000²⁹⁵ m²; while after 1972, it would be decreased to 175,000 m², and finally end at 135,000 m². The project estimated construction cost would also be of a considerable amount, some 635 million NOK in 1971 (6.35 billion NOK today).²⁹⁶ In one of the letters, the CEO of DnC, Johan Melander, argued that the Norwegian capital market was not large enough to serve the project during the first construction years. The needed capital was to be brought in from abroad so that the project could be executed at a rational pace.²⁹⁷ Subsequently, the phasing of the project was to be related to the economy of the whole Oslo area; to the conditions within the building industry where housing production was prioritized through state subsidies; to the overall number of planned building permits; and finally to the impact, which the project would have on the financial market.²⁹⁸ The following analysis will examine developmental possibilities within the project. It will shed light on how and to what degree the architect managed to create a framework within which the project was optimized for a gradual development in accordance with the financial capabilities of DnC.

The 1960s proposal was to be developed in two main stages, with some additional sub-stages, as suggested by Melander in the above-mentioned letter. The first stage would include the area of the project from the neighboring Viking Hotel to the west, to the planned high-rise. In his opinion, the extent of the first stage was motivated by the intention to create a nucleus of shops, which could function as an "activity magnet". Yet, it was not to be so large

295 Vaterland A/S's building plan (*termin- og tempoplan*) from November of 1970 was an optimistic schedule within which the whole project of 260,000 m² was to be done in six years, including building application, design and building. The application process was to be done by 1971; the design work from early 1971 to early 1974; all foundations from late 1972 to late 1974; construction from late 1973 to late 1976. In this schedule, the project was divided in three zones: the zone one was the portion of the site to the west of the Lybeckergate, the zone two was the area to the east of Lybeckergate, and the third zone was the area farthest to the east, adjacent to Brugate. Such a division in smaller manageable areas was more of a technical nature – it was given by the construction logic and not potential developmental strategies on the structural level. It assumed the construction of the project unfolding more or less in one go - this was visible from the fact that all three areas were to be finished at the same moment in time, by the end of 1976. The plan did not assume any possibility of these areas developed in a different pace; all three of them were parts of one singular project.

296 Francis Sejersted, *En storbank i blandingsøkonomien – Den norske Creditbank 1957–1982* (Gyldendal Norsk Forlag, 1982), 108.

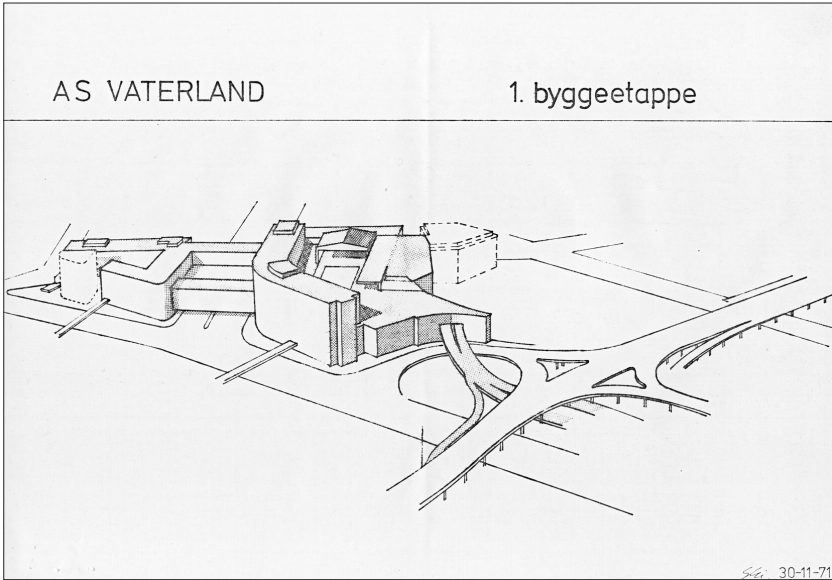
297 Letter by Johan Melander, December 17, 1971. Oslo.

298 Ramstad touches upon potential constraints that may influence the construction of the project: "Considering today's situation it will be difficult to construct a commercial building at Vaterland in addition to all the other commercial buildings that have stood now in the waiting queue for 8-9 years to get the building permit." He mentions also the issue of housing and (regulated) construction cost as some of the factors that would influence the pace of construction at Vaterland. Helge Ramstad, "Vaterland – 15 års arbeid for hva?," *Kontrast* 16 (1969): 19.

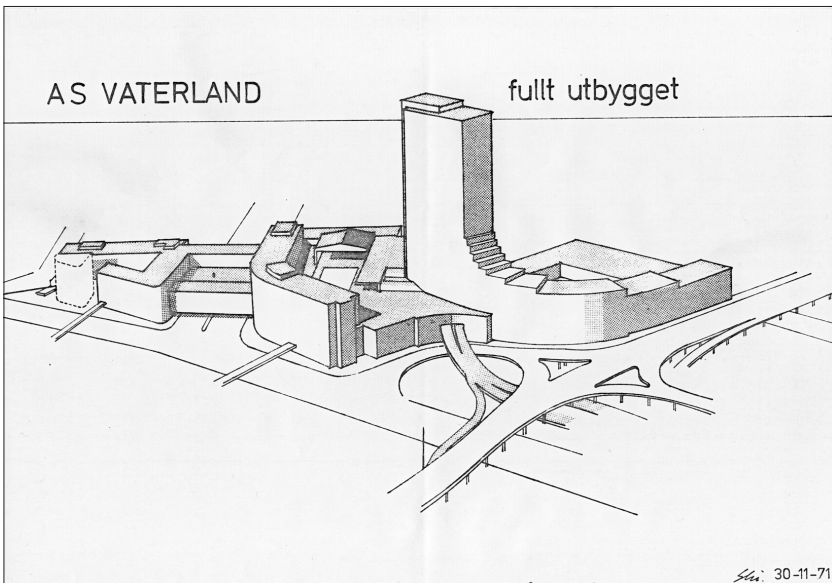
so that it would initiate a stronger competition than necessary to the other shopping areas in the central parts of the city. Besides shopping and service areas, the first stage would also include technical spaces for the whole of the project, offices, restaurants and areas for other social activities. Melander argued further that the programmatic content and physical extent of the first stage had to be completely implemented so that the development would be profitable. As such, it was independent of the second stage. The profit from the lease agreements would have to cover operational expenses as well as down payments for the construction loans, simultaneously as it was to give reasonable profit returns. Melander's argument on the whereabouts of the second stage was somewhat apologetic where he suggested that its detail design be postponed several years, until the first phase was completed. In his opinion, the municipal planning authorities should use the presented plan of the second stage as a "working hypothesis", while after some years and according to the societal changes the municipality and DnC would take a final position on how the rest of the Vaterland project would be.

There were no clear numbers concerning the split between the first and second stage, but by reviewing the perspectives, one may anticipate that these two were more or less of the same size. It should be noted that the suggested developmental plan that was attached to Melander's letter was not part of the original project books from 1968 and 1969 presented to the municipality as an underlay for the process of rezoning. What is even more apparent was the fact that the project had been "just" cut in two parts, without any structural articulation of phasing process – the first stage was not conceptualized as an independently "finished" building. Rather, it seemed more as a fragment of one large form. (117–118) The border between the first stage and the second stage was drawn along the perimeter of the future high-rise, which was to be added as a jigsaw puzzle piece. Some of the areas within the first stage would therefore function as dead ends, and only after the second stage would they improve their usability, for example the parts of the volume adjacent to the car entrance facing the Nylandsveien. Until the second stage was built, the temporary demarcation between stages would function as hundred meter long blind wall. In the interview, Digerud is unclear in explaining the project's developmental potential. He argued that the project was possible to be developed gradually in accordance to the financial capability of the bank, but without adequately explaining the logic of such a gradual development and its relationship towards the overall volume.

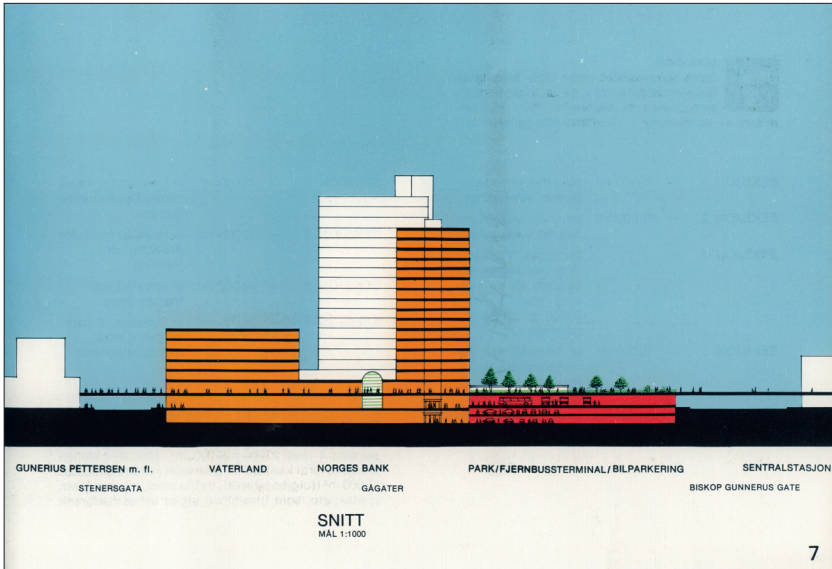
After 1972, the project would be fragmented so that it could be developed more gradually. In the project description, the architect was explicit that the new plan was customized for development in stages, where each stage would



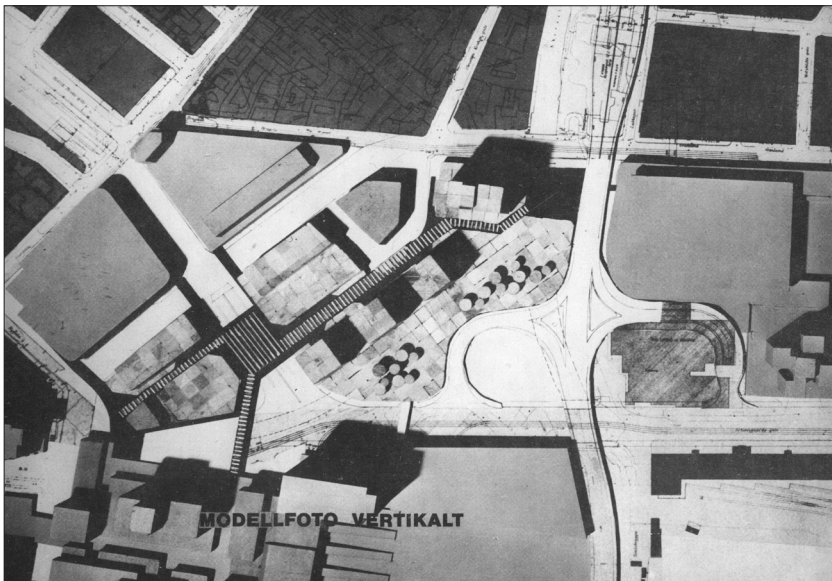
117: Diagram, stage 1, 1971 (Drawing: FSP).



118: Diagram, stage 2 – completion, 1971 (Drawing: FSP).



119: Cross section, 1976 (Drawing: FSP).



120: Model, the view from top, 1974 (Photo: FSP).

entail building of independent volumes (either buildings or city blocks) in any desired construction order.²⁹⁹ Because of such a layout, each building (or block) would have one particular program, being either a parking house, a hotel, or an office building. Still, as it was discussed in the earlier analyses, the issue of an elevated pedestrian street would be a challenging aspect if the project were to be developed in stages with no particular order. Eight out of ten building volumes were connected to it and subsequently were dependent on its infrastructural capability – to distribute the pedestrian traffic and therefore to grant access to these buildings.

In that sense, the pedestrian elevated street was to be constructed in its totality before the adjacent plots were to be developed, precisely because it was to be the main access to the future building within the project. Additionally, if each volume would be programmed with one particular function, then there would be an unresolved issue of interdependency. An office building on one plot was dependent on the construction of the parking house on another plot, simultaneously as the pedestrian street was to be in place to grant access between these two plots and to the city infrastructure – the adjacent railway station. (119–120)

It is viable that these constraints were being projected on the field of architecture. The pre-1972 proposals were slowly taking into account this tendency, from 1970 when the project was anticipated to be developed in one go, to be divided into two main parts a year later. What is evident in these proposals is that they started with a “finished” architecture: one uniform volume, which then was economically and politically made “real” and legitimate, but without structurally changing the project itself. The volume was divided into two parts, which were just two fragments of a larger form where the fragments themselves were not interdependent of the whole. As such, the 1960s proposal did not manage to articulate the fourth dimension, that of time, within its framework. The post-1972 proposals would start enhancing the bottom-up and real needs – they would, in the making of the project, take into the account the political and the economic prerequisites, and by fragmentation of the totality of the project, these prerequisites would be absorbed more incrementally. Still, the way this was done shows that pragmatism towards the outside context (the actual needs and existing surroundings) was an emerging topic within the architecture culture. The architects had to find an operative way to create large-scale plans simultaneously as these plans were to have a space within which insecurities – the political and the economic ones – could be absorbed more optimally.

299 F.S. Platou in “Vaterland,” A/S Vaterland, September 1972, 1.

SUMMARIZING REMARKS

In this chapter, I have explored Platou's project for the redevelopment of Vaterland area of Oslo. In its introductory part, I reviewed the socio-political and cultural context in Norway and Oslo during the 1960s. Through the six thematic reviews, I have examined translation of ideas, ideals and imaginaries unfolding at different iterations of Platou's project. Here, I have analyzed and dissected the architect's intentions and how these intentions were turned into the material reality of the project. In the following summarizing remarks, I will reflect on the conducted analysis by touching upon the capacity of the chosen perspectives: what has been unveiled through them and what not.

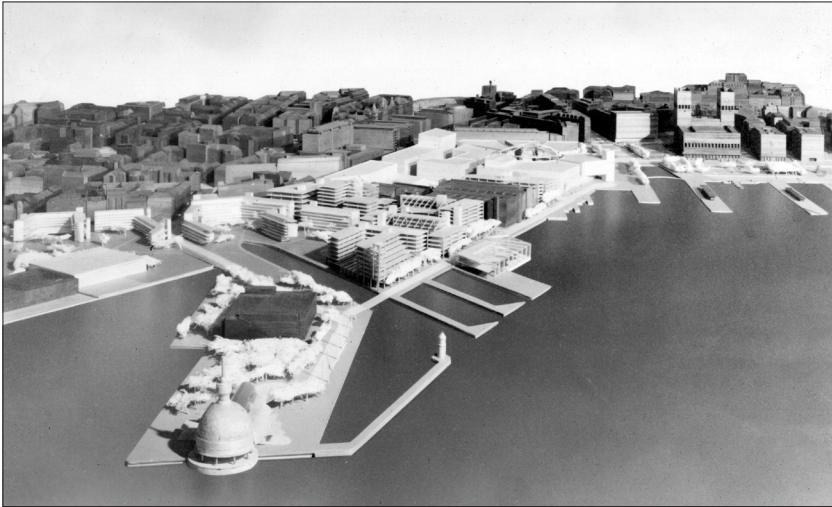
The analysis of this case has shed light on two intertwining issues. The making of large-scale architecture would begin to enhance a set of different complexities beyond structural, programmatic and organizational nature. The embodiment of power, as previously defined through the simple relationship between bank-CEO Melander, architect Platou, and city mayor Bull, would enter a much more unstable and variable context defined by several partakers having capacity to mobilize a broader public critique. The large-scale would also become an object of politics. Secondly, the empiric material shows an approach towards decreased architectural specificity within the project. There was an emerging tendency for a strategic approach, which suggested a logic based on flexibility and simplicity within the overall framework of the project. This would make it possible to absorb eventual fluctuations caused by public opinion, political bargaining and economic down-/upturns. A fragmented complex consisting of several generic volumes with distributed developmental potential would replace the articulation of the large-scale as a *megaform* – one unison shaped large volume.

Still, there are two other issues, which have not been encountered within my research perspectives, but deserve to be mentioned as a potential opener for additional discussions on the issue of the large-scale and the translation of ideas. Firstly, my perspective did not considerably touch upon the history of building technology. The large-scale as a project was dependent on both the contemporary construction techniques and building procedures. A potential review of these would have illustrated to what degree building technology was a modifying factor in the process of translation of ideas. The reason why I have not accentuated this issue is that the notion of building technology and techniques was not a part of the discussions suggested by the architect. As such, these seemed to be absorbed 'a priori' during the design process, and were not forwarded as potential constraints. The only place where the

architect did touch upon these was in the case of parking being placed on the upper floors and not in the basement. High water pressure in the soil made it impossible to have more than one basement level. Secondly, my perspectives did not touch upon the issue of the project's economic rationale. I have taken for granted the architect's and the client's statements regarding this underlying factor. To analyze this systematically would have demanded a broader insight and understanding of both the economic theory and specific economic matters of the period.

Finally, the project's departure in terms of its underlying ideas could be related to the architecture culture of the 1960s, being influenced by the American learnings, as explicated by Digerud. What is interesting with Platou's project was that it initially fully engaged forces of urbanization while trying to make *an architecture* out of it. Unfortunately, this architecture, despite its numerous qualities, for example in terms of its interior spatial sequences, would become too static to enhance the changing societal conditions and ideals where the focus towards 'soft' values would start competing, and consequently overshadowing structural and urbanization considerations. As such, this project became a target for the (leftist) opposition, which managed to articulate its critique on two particular levels: on one side, it aimed at the project's architecture where its large scale and shopping program were disregarded on the ideological basis being directly related to capitalist forces. This could also be related to the emergence of low-rise high-density ideal. On the other side, the critique was against the way this project was bureaucratically processed, through an interchange between a few, yet powerful, men. Usually, this kind of top-down planning procedures was in accordance with the normative approach towards the space production of the time and was applicable in the modernist urban expansion project.

DnC's project was a new type of a building assignment, different in its large scale, complexity and the context of intervention. It would potentially demand a different procedural and urbanistic approach, something that it did not have at its inception. For some fifteen years, the project would be continually changed and altered, finally to enter an unclear ideological in-between, being neither a representative of the old regime nor the representative of the future one. Perhaps, it is therefore that it also finally died. Above all, this project is interesting as it illustrates through its different iterations how the large-scale gradually transforms from being an oversized uniform architectural object to a fragmented complex articulated as an ordinary urban structure.



121: Model, the view from south, Aker Brygge, Telje-Torp-Aasen, 1984 (Photo: TTA).

5. The Large-Scale Perfection: Aker Brygge

The early 1980s would signal another type of reality than what was the case a decade earlier when the state education projects on the outskirts of the cities, and the private redevelopment complexes in the city centers were initiated. This emerging reality was to be characterized by the transformation of the former industrial compounds and by the emergence of a new type of investors – the industrial corporations would become also property developers. One of the first such projects was the transformation of Akers Mekaniske Verksted into a mixed-use waterfront development, later called Aker Brygge. My assumption is that this project represents an important episode in the series of episodes through which the *large-scale* is born and developed as a type of architecture in Norway. In this series, Henning Larsen's Trondheim University project is approached as an architectural premonition – a foreshadowing of the emerging *large-scale* while F.S. Platou's Vaterland iterations are architectural trials within which the *large-scale* starts maturing and enhancing more directly the changing socio-political and economic realities.

The following chapter is based on the reading of Telje-Torp-Aasen's (from now on TTA) runner-up proposal for the competition "Byen og Fjorden – Oslo år 2000" from 1983, and the office's reworked proposal presented at the Oslo City Hall in 1984. (121) My analysis is charted by three overarching discussions: (1) It discusses implications of new policies and changing economic framework of the period as condensed within the notion of neo-liberalist practice. (2) It discusses underlying ideas, ideals and imaginaries and their subsequent translation into the physical reality of the large-scale. (3) It explores a possibility of potentially genuine answers – a repertoire of solutions for articulation of the large-scale within the existing urban context.

TTA was responsible for the initial zoning process taking place from 1984 to 1986, as well as for the design of Terminalbygget completed during this period. In 1986, the client Aker Eiendom invited five other architectural offices to develop partial-solutions for the second stage consisting of four city blocks. TTA's representative participated as an advisor to the client in this

mini-competition. Fredrik Torp's brother, Niels Torp won and subsequently acquired the whole assignment for development of the second stage. This was against the recommendations by Fredrik Torp, who argued that these four blocks totaling 70,000 m² should be designed by different offices in order to maintain variation of ideas and expressions. Right after, the contractor Selmer-Furuholmen landed the contract [totalenterprise] for the whole second stage, as well as it had 'taken over' the selected architect (Niels Torp) and the preliminary project drawn in 1:200 scale. TTA was asked to withdraw.³⁰⁰

Aker Brygge developed rapidly. The first stage was finalized in 1986. The second aforementioned stage by Niels Torp was completed in 1989. The third stage, by Kari Nissen-Brodtkorb, was implemented in 1990, while the fourth and the last stage was done in 1998.³⁰¹ During the course of fifteen years from the competition to the finalization of the project, 260,000 m² would be developed. It should be noted that in the second stage, TTA's overarching plan would be somewhat modified. I would argue that one of the reasons may be that the building assignment and conditions surrounding the project became more specific, as the professionalization within the property development and the framework of the neoliberal practice started becoming increasingly solidified. The main architectural and urbanistic difference was that Niels Torp proposed an urban plaza where TTA had previously placed a park, as well as the boardwalk would be further strengthened as a pedestrian zone. My understanding of the totality of the project is that TTA's proposal had laid the basis for what later would become Aker Brygge, and that modifications within the subsequent stages may be rather seen as a continuation and articulation of the same approach in terms of proposed scale, programmatic performance and attitude towards the idea of urban space.

S O U R C E S

The main empiric sources for this chapter are the Telje-Torp-Aasen's drawings and explanations supplied in the competition proposal published in *Norske Arkitektkonkurranser* no. 252 from 1984 and the drawing material obtained from the archives of Telje-Torp-Aasen architecture office (from now on TTA). I have also used published texts by the involved architects and the competition organizers: Fredrik Torp's "Historien om Aker Brygge – et drama i 26 bilder" from *Byggekunst* (7/1989), and the double issue of *St. Hallvard* magazine

³⁰⁰ This review is based on Fredrik Torp's "Historien om Aker Brygge – et drama i 26 bilder," *Byggekunst* 7 (1989): 502–505.

³⁰¹ The author of this research, after completing the first year of his architectural studies, spent the summer of 1997 as a construction worker for company Conform A/S doing concrete work at the fourth stage of Aker Brygge development.

(1+2/1983) by Oslo Byes Vel. The former was a summary of the whole process, written in 1989, three years after TTA withdrew from the project, while the latter is from 1983 when the project was initiated. In addition, some of the main empirical data comes from the interviews conducted with Fredrik Torp and the former Plan Commissioner of Oslo and the competition's jury member, architect Sven W. Meinich, among others.

SOCIETY

Ruptures and Continuities

The 1970s was a decade of economic crises, unrest, and conflicting tendencies throughout Western Europe. The neo-liberal wind of change would manifest itself firstly in Britain through the election of Margaret Thatcher in 1979. The new Tory Prime Minister would initiate a series of measures, commonly referred as Thatcherism: reduced taxes, the free market, free enterprise, privatization of industries and services, 'Victorian values', patriotism, 'the individual' – and especially destruction of the public influence exercised by British unions.³⁰²

In Norway, certain economic transformation processes would be initiated during the reign of Oddvar Nordli's government (1976–81), but these would be further expanded and accelerated under the government of Kåre Willoch (1981–86). In 1979, one of the first official actions relating to the industry politics was the switch from specially targeted and selective support measures to a more general framework for enhancing better business conditions,³⁰³ being a Norwegian version of the ideological reorientation back to the market, a tendency that was evident in the OECD area from the late 1970s.³⁰⁴ An important step in this reorientation was also the reformulation of the Labor Party's traditional economic policies, within which the interest rate was politically regulated. In 1977, Renteutvalget was established to consider how the transformation of economic mechanisms was to happen, recommending in 1980, in broad terms, introduction of a steady transition towards the free market – the economic growth was to be driven by market and private initiative within it.³⁰⁵ The prevailing Keynesian approach started giving way to monetarism, with its tendency to look upon inflation as a greater threat to the economy than unemployment.³⁰⁶

302 Tony Judt, *Postwar: A History of Europe since 1945* (London: Pimlico, 2007), 540.

303 Finn Olstad, *Frihetens århundre – norsk historie gjennom de siste hundre år* (Oslo: Pax Forlag A/S, 2010), 206.

304 Harald Espeli, *Industripolitikk på avveie. Motkonjunkturpolitikken og Norges Industriforbunds rolle 1975–1980* (Oslo: Gyldendal, 1992), 191.

305 Finn Olstad, *Frihetens århundre – norsk historie gjennom de siste hundre år* (Oslo: Pax Forlag A/S, 2010), 206.

306 Francis Sejersted, *The Age of Social Democracy: Norway and Sweden in the Twentieth Century* (Princeton: Princeton University Press, 2011), 350.

Subsequently, the regulation of the credit market, a cornerstone in the postwar economic policies, was gradually put aside by the Willoch government, as loans and investment capital were increasingly channeled through commercial banks. The position of state banks was slowly weakening.³⁰⁷ One of the contexts where the emerging private capital was strongly present was within the context of property development, which would emerge as an important business branch. There are several aspects characterizing its logic: The production *of* the city would be equally important financially as the production *within* the city; Property development would be characterized through the notion of general commodification, where the value itself would be defined more by the criterion of exchangeability and less by usability; Minimization of rent-gap based on the disparity between a current rental income of a property and the potentially achievable rental income in the future; Economic value creation would unfold through visionary thinking, being result-oriented and having a strong public and political support; The development of publicly-owned property would be subjected to the same mechanisms as those functioning within the private sector.³⁰⁸

Perhaps, the most explicit consequence of this neo-liberal reality was its influence on housing production, which was gradually deregulated, becoming increasingly woven into the logic of property development and consumerism. In 1976, eight out of ten housing units were built through the loans of the Norwegian State Housing Bank [Husbanken], while in 1980, it would be six out of ten, and four out of ten by 1987.³⁰⁹ OBOS³¹⁰ Martin Meland used to say on several occasions that before 1980, OBOS built for people's needs, while after 1980, it built for people's dreams.³¹¹

During the period 1974–80, Norway was the country with the highest economic growth in Europe, mostly due to the arrival of North Sea oil.³¹² The emerging offshore oil industry would reverse large import deficits into export surpluses, as it would make Norwegian economy more trustworthy in the international context: the Norwegian currency would be strengthened by 20% in the period 1973–77.³¹³ The consequences, both of the emerging deregulation economic policies and of the high-valued Norwegian krone, would have an immense impact on the Norwegian industry: on one side, it could not count

307 Finn Olstad, *Frihetens århundre – norsk historie gjennom de siste hundre år* (Oslo: Pax Forlag A/S, 2010), 206. Monetarism is an economic theory that focuses on the macroeconomic effects of the supply of money and central banking. Formulated by Milton Friedman, it argues that excessive expansion of the money supply is inherently inflationary, and that monetary authorities should focus solely on maintaining price stability.

308 Karl Otto Ellefsen, "Vernemyndighetenes rolle i forhandlingsplanlegging," lecture at TAB Conference, Oslo, 16/06/2010.

309 Finn Olstad, *Frihetens århundre – norsk historie gjennom de siste hundre år* (Oslo: Pax Forlag A/S, 2010), 214.

310 OBOS – Oslo Bolig og Sparelag - is one one of the largest housing cooperatives in Norway.

311 Interview with Tore Langaard and Mirza Mujezinović, 30/11/2011, Oslo.

312 Berge Furre, *Norsk Historie 1914–2000* (Oslo: Det Norske Samlaget, 2000), 229.

313 *Ibid.*, 229

any more on the specific financial subsidies from the state, while on the other, its products would be more expensive in the international markets. The Labor Party's principles and the way of regulating the industrial sector, dating back to the post-war years, would be in ruins by 1980.³¹⁴ The processes of restructuring Norwegian industry would start unfolding. This would result in numerous industries leaving their compounds in the central areas. Such contexts would be the very places of the new urban transformations, for example, Aker's redevelopment of its former shipyard into Aker Brygge, and transformation of the Aker River banks into a cluster for creative industries and educational facilities.

Parallel to the changes within the financial and industrial sector, the transformation processes within the governing and administrative sector were also initiated. These could be related to *Maktutredningen*, a research program initiated by the Norwegian government in 1972 to study actual power relationships in Norway. This study, which was inspired by the contemporary American sociology and game theory, was conducted in the period 1972–81. The notion of “the segmented state”³¹⁵ launched in 1978, was one of the most influential inventions of this study, next to the notions of ‘negotiative economy’ [forhandlingsøkonomi] and ‘mixed administration’ [blandingsadministrasjon].³¹⁶ The emerging political and administrative system was described as a collection of segments or decision-making arenas: “each segment could be described by questioning which participants are legitimate; which problems, values and conditions are central, and which type of knowledge is defined as expertise”.³¹⁷ This study would be formalized through the governmental report to the parliament [stortingsmelding] in 1983. The authority of the state to regulate society was being gradually transformed through other forms of governing: in addition to the central regulatory approach, the power would be also exercised in the encounter with the site-specific local needs and issues through an operative involvement with the concerned parties.

Indirectly this report could be seen as a basis for how planning practices and space production processes, among others, would perform in the years to come.³¹⁸ Instead of the previously centralized approach, within which the

314 Harald Espeli, *Industripolitikk på avveie. Motkonjunkturpolitikken og Norges Industriforbunds rolle 1975–1980* (Oslo: Gyldendal, 1992), 232.

315 Here the term *state* refers to the Norwegian term for country – *stat*. The original term is *den segmenterte stat*.
316 The English translation of terms *forhandlingsøkonomi* and *blandingsadministrasjon* is taken from Francis Sejersted, *The Age of Social Democracy: Norway and Sweden in the Twentieth Century* (Princeton: Princeton University Press, 2011), 378.

317 Harald Espeli, *Industripolitikk på avveie. Motkonjunkturpolitikken og Norges Industriforbunds rolle 1975–1980* (Oslo: Gyldendal, 1992), 236. The original Norwegian text is quoted by Espeli from *Maktutredningen*: “Hvert slikt segment kan beskrives ved hjelp av hvilke deltagere som ansees som legitime, hvilke problemstillinger, verdier og situasjonsoppfatninger som oppfattes som sentrale, hvilke typer kunnskap som defineres som ekspertise.”

318 In 1985, the new law was launched, “Loven om forslagsrett: § 30 Private forslag om regulering, LOV 1985-06-14 nr. 77”, which would guarantee twelve weeks of processing time for privately initiated zoning plans.

state and municipality were regulating and strongly defining space production, for example through the predefined annual number of building permits on the national level, from the 1980s they would take the position of a negotiator and a facilitator – transforming *governing* into *governance* within the realm of new public management. The market would propose solutions because it was in a direct relationship to the demands by people (as consumers) as it offered creative solutions to emerging problems.³¹⁹ Due to liberalization measures towards the flow of investment capital, the private sector would become the main initiator for urban development projects while the authorities would facilitate and protect the public interest.³²⁰ The municipal planning offices would be de-politicized: the new role of the planner was to function as a professional advisor (independent of a political affiliation) to those with the decision-making mandate (having the political positions).

The Planning Law of 1985 would enhance the new market-based reality, for example, the Master Plan would illustrate the characteristics and dynamics of change in land use rather than fixed pattern of use. In Oslo, even the use of zoning according to area types was waived from the maps of the Master Plan in order to offer a higher degree of freedom and openness to new projects, which were thereafter to be judged in terms of their quality and adaptation to the existing context, an approach imported from Fort Collins in Colorado.³²¹ Subsequently, Partial Master Plans³²² treating parts of the municipality would be used increasingly more as an instrument in the process of planning.

These changes would be also visible in the emergence of new collaboration forms: the public and the private initiatives would intertwine in order to find more operative ways to initiate space production processes than what was the case in the 1970s, for example in the context of Vaterland where such a collaboration form was unthinkable. One such an example was the establishment of IN'BY, a non-profit organization owned by Oslo municipality and private groups (from commerce interest organization, housing collaborative and banks).³²³ They staged collaborations, which went beyond pure property development,

319 Rolf H. Jensen, "Planleggerprofesjonens utvikling gjennom de siste hundre år," *Plan* 4–5/2013, 13.

320 Rolf H. Jensen's description of the new context is highly indicative of the change in procedures, something that was a direct consequence of negotiative planning: "The challenge that confronted planning can be illustrated with a description of planning experience during the first years of this reform. At the time, a conservative and strongly populist current, along with the tailwind of liberal economic thought, was sweeping the city of Oslo. Quite frankly, a decidedly American influence and a large dose of Thatcherism had reached Oslo. The newly elected head of the first executive board told those working for Oslo's city planning office that 'if you continue to be the latent political force you have been in recent years; I will make sure that this office is closed down. On the other hand, if you chose to be my professional advisers, I'll give you plenty to do.' This occurred at the time when the city planning office had been greatly reduced in size, as had other professional service in the city." Rolf H. Jensen, "Norwegian Urban Planning – Oslo: From Provincial to Cosmopolitan Capital," in Koos Bosma/Helma Hellinga (ed.) *Mastering the City – North-European Planning 1900–2000 Volume 2* (Rotterdam: NAI Publishers, 1997), 39.

321 Rolf H. Jensen, "Planleggerprofesjonens utvikling gjennom de siste hundre år," *Plan* 4–5 (2013): 13.

322 Jensen uses English term Partial Master Plans to refer to Norwegian term *Kommunedelplan*.

323 The initiators of IN'BY were Peter Butenschön and Dag Andersen, the secretary advisor of Hans Svelland – the Oslo municipality commissioner for planning council [Kommunlråd for planutvalget].

but more in the direction of strategic planning and counseling on the matters of improved public spaces. The initial processes relating to transformation of Bjørvika are indicative of these new collaboration forms.

The City as We Used to Know It

Since the early 1950s, there was a continuous depopulation in the central urban areas of Oslo. People moved to the newly built satellite towns and the hills.³²⁴ In the period 1950–1985, the number of inhabitants living in the inner city would decrease from 300,000 to 125,000,³²⁵ as the area was potentially characterized by poor housing conditions.³²⁶ This was powerfully portrayed in Åsmund Lindal's book *Oslo-bilder, en fotografisk dokumentasjon av bo- og leveforhold i 1981–82* from 1982, showing a systematic decay of built environment, with unmaintained buildings having poor sanitation conditions, and rundown outdoor areas. (122)

Within this context, one should mention the municipality's urban renewal project, which up to the 1970s dealt with redevelopment of areas with poor building mass. Such an approach was juridically bound to Saneringsloven [Urban Redevelopment Act] from 1967, formulated to facilitate demolition.³²⁷ During this period, Oslo municipality identified seventeen different areas mature for redevelopment, among others Enerhaugen, Vaterland, Briskeby, Vålerenga, and Grünerløkka.³²⁸ The most radically affected area was Vestre Vika, where a complete demolition and redevelopment was carried out. By the mid-1960s, a modern office district was completed; something that also inspired redevelopment processes at Vaterland.

During the 1970s, urban renewal would appropriate another form, as the notion of preservation would gain importance, something that would be absorbed by a new law Urban Renewal Act [Byfornyelsesloven] from 1976.³²⁹ This would have immediate consequences, for example Oslo municipality

324 The term 'hills' is used by Halvor Weider Ellefsen and Mirza Mujezinović in the article "Custom Made: The Architecture of Three Ecologies," *World Architecture China*, volume 285, 5 (2014): 58–61. "The Norwegian urban condition could be defined by a relatively small and dense city center adjacent to the waterfront, surrounded by a hilly and endless low-rise residential carpet [the hills] perpetuated by abundant sub-polar vegetation, all together being weaved by presence of well-developed infrastructural layers of motorways and railroads. The most typical architectural manifestation of this context [the hills] has been that of single family house."

325 Edgeir Benum, "Tvilens tid," in *Oslos byhistorie – bind 5* (Oslo: J.W.Cappelens Forlag A/S, 1994), 346. In addition, after twenty years following the release of cars sales, in 1983, the bottom was reached in terms of migration from the city municipality to the surrounding suburban municipalities of Akershus.

326 In 1960, the tenement was still Oslo's dominant residential type where well over half of households lived. One-third of the dwellings were in houses built before 1921. 20% of the dwellings lacked toilets and 35% were without bathrooms. 6% of the entire housing mass was considered mature for redevelopment. For more information, refer to Thorbjørn Hansen and Jon Guttu, *Fra storskalabygging til frislepp – beretning om Oslo kommunes boligpolitikk 1960–89* (Oslo: Norges Byggforskningsinstitutt, 1998), 14.

327 In Denmark, an equivalent law was passed in 1959. John Pløger, *Det senmoderne nærmiljø – livsformer og bykultur* (Oslo: NIBR-rapport 2002:16), 52.

328 Thorbjørn Hansen and Jon Guttu, *Fra storskalabygging til frislepp – beretning om Oslo kommunes boligpolitikk 1960–89* (Oslo: Norges Byggforskningsinstitutt, 1998), 54.

329 For more information refer to Knud Erik Hansen and Hans Skifter Andersen, *Politik for bolig- og byfornyelse i de nordiske lande* (Hørsholm: SBI, 1990), 10–11, 27–36.

would initiate the city renewal program in 1977–78. The plan was to rehabilitate and modernize the existing housing mass where each year 2,000 housing units were to be enabled. Buildings that were in too bad condition would be demolished and new ones erected. In addition, the municipality initiated improvement of the outdoor areas by introducing a repertoire of soft-solutions: traffic was to be controlled, street parking was reduced, as well as green areas and inner courts were optimized for outdoor activities. Within such a context of urban transformation in the existing central areas, several other processes would emerge, for example those of gentrification.

The processes of urban expansion characterize the post-war period during which urban outskirts were urbanized through residential towns – *drabantbyer*. One of the first such projects was Lambertseter, built in the early 1950s while the culmination of these expansion processes (and housing mass-production) would take place in Groruddalen during the 1960s with developments at Ammerud, Romsås and Vestli.³³⁰ By the early 1980s, Oslo would find itself in a new situation: the city’s developmental strategies would now revolve around the notion of urban transformation within the existing city,³³¹ echoing the slogan of the American master planner and developer James Rouse “The Cities are Fun!” used on the cover of Time Magazine in August 1981. (123) Within this framework, the nature of urban interventions would be defined by a new set of ideals, ideas and imaginaries, as well as a new type of planning procedures. The implementation of the large-scale within the emerging neo-liberal regime would unfold through a synthesis of American-inspired developmental models and renewed fascination of the European city – the one as we used to know from 19th century Oslo and Paris paintings of Edward Munch.³³²

Akers Mekaniske Verksted

The story of Aker Mekaniske Verksted is a story about changing needs in an increasingly more global world where shipping and shipbuilding would be radically transformed in the post-war period. Akers Mekaniske Verksted was one of the main industrial companies in Oslo, employing some 2,000 people, while having facilities of 65,000 m² placed on the city’s waterfront adjacent to the center. During its 150-year long history, it produced large amounts of ships whose size was continually increasing according to the demands of each period. On several occasions when the facilities in Oslo seemed too small,

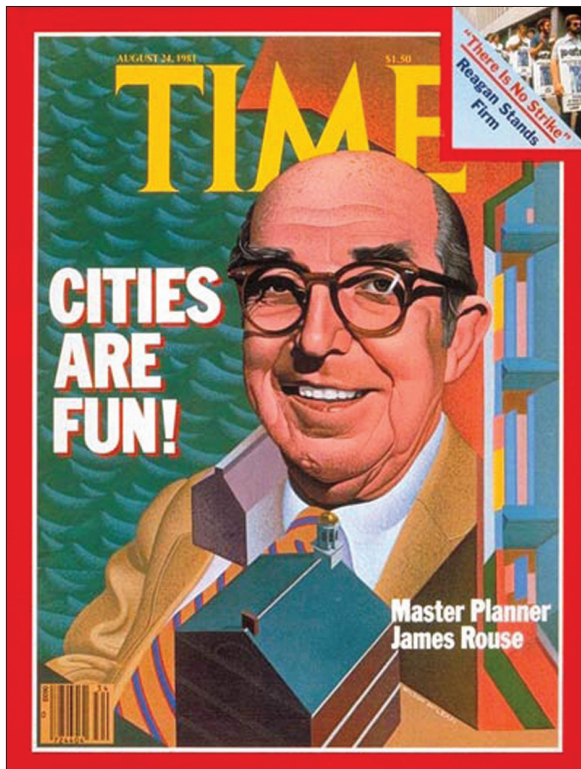
330 The last long-term development within the urban expansion project was the plan for Søndre Nordstrand, developed by the municipal planning office in the early 1980s; refer to the interview with Sven. W. Meinich and Mirza Mujezinović, 11/06/2015, Oslo.

331 In the 1980s, planning procedures would be transformed from synoptic to incremental approach. These terms are used as defined by Barclay M. Hudson, “Comparison of Current Planning Theories: Counterparts and Contradictions,” *Journal of the American Planning Association*, Vol. 25 No. 4 1979.

332 Typical examples are ‘A Spring Day on Karl Johan’ and ‘Rue Lafayette,’ both from 1891.



122: Oslo inner city in the early 1980s (Facsimile: Åsmund Lindal, *Oslo-bilder, en fotografisk dokumentasjon av bo- og leveforhold i 1981–82*, pages 48–49).



123: Master Planner James Rouse (Facsimile: Cover, *Time Magazine*, August 24, 1981).



124: Aker Mekaniske Verksted in the 1970s (Photo: Unknown).



125: City Hall plaza in the 1970s (Photo: Unknown/image found in TTA's archive).

Akergruppen planned to expand, by buying and enabling other shipyards. In 1956, the company would secure Stord on the western coast of Norway, as its new production facility, something that would make possible construction of ships with higher tonnage, from 20,000 tons which was possible in Oslo, to supertankers of 200,000 tons – being twice as large as the largest ships built at the time anywhere in the world.³³³ The raw ships would be built at Stord; towed to Oslo, where finally outfitted.

In the early 1970s, the building of tankers was beginning to be gradually replaced by the construction of oilrigs, the advanced Aker H-series rigs, due to the emerging Norwegian offshore industry that was accelerated by the oil findings in the North Sea in 1969. (124–125) During this period, the shipbuilding at Aker Mekaniske Verksted was phased out due to the increased competition from the Far East, within which Akergruppen was losing its position due to the company's decreased competitiveness and low profitability, as well as the international tanker-ship market became highly volatile due to the oil crisis of 1972.³³⁴ By the late 1970s, the company's facilities in Oslo would also become ineffective due to the increased size of oilrig structures. In addition, Oslo Fjord was too small and narrow for transport of these *megastructures*. Subsequently, Aker Mekaniske Verksted would become obsolete as an industrial compound as Akergruppen restructured its industrial activity by moving its main facilities to Stord and Vardal. By 1981, Akers Mekaniske Verksted would finally closed down. 150 years of industrial activity was over, despite the fact that the Norwegian Confederation of Trade Unions (LO) lobbied to maintain the site as an industrial area, wanting to replace one industry with another.³³⁵

BUILDING ASSIGNMENT

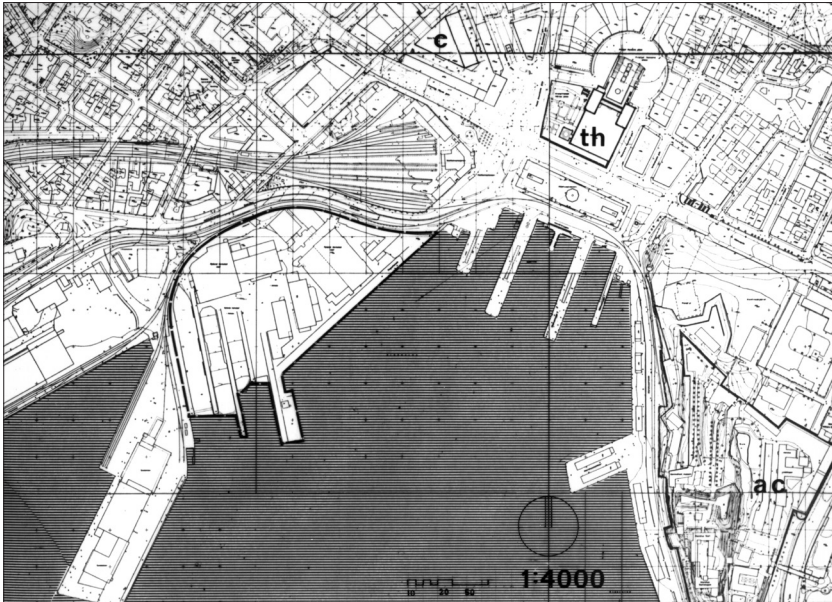
“Byen og fjorden – Oslo år 2000”

At the beginning of the 1980s, it was clear that Oslo and its harbor would start becoming affected by changing socio-political and economic conditions. Some of the harbor's industrial activities were to be abolished in the near future. The westbound railway station at Vestbanen was to be closed as the railway tunnel underneath the city's center was under construction. (126) These conditions

333 Dag Solstad, *Medaljens forside* (Oslo: J.W. Cappelens Forlag A/S, 1990), 312–317. It is important to note that the structure of oil production in the world would be radically changed in the late 1950s. Before the late 1950s, the refinement of oil happened at the places where oil was extracted, and thereafter it would be transported to the industrial countries in the West. From the late 1950s, oil would be refined at the places of consumption; mainly to avoid nationalization attempts of oil industry happening in some of the Middle Eastern countries, as well as the need for oil was strongly increasing in the West. The new tendency would entail that crude oil was to be transported in largest possible amounts, resulting in the emergence of supertankers with capacities from 100,000 to 200,000 tons.

334 Harald Espeli, *Industripolitikk på avveie. Motkonjunkturpolitikken og Norges Industriforbunds rolle 1975–1980* (Oslo: Gyldendal, 1992), 233.

335 Interview with Christian Joys and Mirza Mujezinović, 17/02/2012, Oslo.



126: Situation in the early 1980s (Drawing: Dokveien 1 brochure/ image found in TTA's archive).



127: "Christiania Skoitebane", Wilhelm von Hanno, 1873.

may be seen as indirect reasons for the initiation of the competition “Byen og fjorden – Oslo år 2000” in September of 1982.³³⁶

Yet, one particular event did instigate it: As the plan for the new highway tunnel was in the making (Vannlinjen or Grunnlinjen), the railroad authority had suggested a highway interchange placed at Vestbanen. Oslo Byes Vel³³⁷ [Society for the Welfare of Oslo] would organize the competition as a countermeasure to these plans,³³⁸ simultaneously as it would use the opportunity to put the focus on the link between the city and the fjord. From the program, one could sense the new era emerging both in terms of ideals relating to what the city should be and in terms of the involved partakers representing different interests.

In the introductory text, the disengagement between the city and the fjord was described as the competition’s departing point. Oslo was a city at the fjord, but such a condition was lost due to the industrial and harbor activities, as well as due to the railway lines and the traversing highway. The aim of the competition was to embrace a reverse – “to offer a waterfront where one could live, work, relax, do business, buy shrimps, enjoy and meet other people”.³³⁹ An analogy to this condition was Wilhelm von Hanno’s painting “Christiania Skøitebane” from 1873, showing the unfolding urban life on a romantic winter day. (127) The fjord was frozen, but filled with the masses enjoying the day on their skates.

The post-industrial transformation was under way; the old functionalist separation of functions was outdated as a ruling ideology; and the issue of free time and leisure was essential, in a way anything other than what had been visible ten years earlier in the DnC Vaterland project.³⁴⁰ The aim of the competition was to examine both the overall situation and potentialities within the harbor area as a whole; partial zones which appeared as particularly important; and those smaller situations and components that were usually underestimated due to the size and the complexity of the planning assignments. The competition was divided into three separate competitions: one dealing

336 “Konkurransinformasjon,” *St. Hallvard* (1+2/1983, Oslo): 135. The competition was a product of several partners. The first initiative came from The Association of the Norwegian Landscape architects, after it had contacted Selskabet for Oslo Byes Vel, which had published an issue on Vestbanen in its magazine *St. Hallvard* 4 (1979). The association wanted to take further the issues and ideas suggested in the magazine. Subsequently, the rest of the professional milieu came on board (Fortidsminneforeningen, Norsk Forening for Bolig- og Byplanlegging, Norske Arkitekters Landsforbund, Norske Landskapsarkitekters Forening, Norske Sivilingeniørers Forening, Oslo Arkitekt Forening, Rådgivende Ingeniørers Forening). Akergruppen gave a decisive economic support, along with other contributors (Sparebanken, Wilh. Wilhelmsen, RIF, Oslo Havnevesen, Norsk Folk – gjensidig livsforsikringsselskap, Norges Brannkasse) – the competition’s budget was 1.1 million NOK. The technical committee was led by Oslo municipality’s planning department (Byplankontoret).

337 Oslo Byes Vel is an independent and politically neutral organization with a primary focus on participation, urban culture and urban environment. It was founded in 1811 with an intention to influence values and decisions relating to Oslo’s physical development. <http://www.oslobyesvel.no>.

338 Interview with Sigurd Østberg, Halvor Weider Ellefsen and Mirza Mujezinović, 10/04/2012, Oslo.

339 “Byen og fjorden – Oslo år 2000,” *Norske arkitektkonkurranser*, 252 (1984): 3.

340 Ole Borge’s critique towards the reformulation of the Vaterland project’s ideological basis in 1972: “I do not understand why leisure necessarily needs to be added to the same areas where serious labor functions are to be performed; I doubt in the social benefit of bringing people with leisure problems to the center of the city.”

with the general plan for the whole Oslo harbor from Hjortnes to the west, to Ormsundkaia to the east; another dealing with the transformation of Aker Mekaniske Veksted (Nyland Vest) along with Vestbanen and Tjuvholmen; and the third dealing with ideas for how to develop transition between water and land.³⁴¹

What was special with the competition's overall format was the presence of numerous stakeholders representing different instances from Akergruppen, Oslo municipality, the city's port authority, to the professionals within different fields (landscape architecture, architecture, planning).³⁴² Such a broad representation was something new; for example in the case of University of Trondheim competition, the jury consisted only of architects and client representatives. The competition "Byen og fjorden – Oslo år 2000" illustrates three particular tendencies: the rise of governance, 'sectorization' of planning interests and public realm as a political force.

The issue of governance would be most explicit in terms of the competition for the transformation of Aker Mekaniske Verksted. Akergruppen's executive, Kjell Wester said that the company had approached the competition results more as a general expression of wishes than what exactly it was to be implemented. Akergruppen was to review all proposals and not necessarily the ones that would be selected as the winners. As he argued, Akergruppen's approach was to encounter freely other proposals in addition; the new plan could enhance solutions coming from several proposals.³⁴³ One could read this as a way to formulate the competition as an agent that could open up developmental possibilities and subsequent implementation processes; and not as a traditional provider of a finished and static image of physical reality. It would be Akergruppen who would customize the plan, and not municipality's

341 The first one was more of a traditional planning assignment through which the competing architects were to show how the rational harbor activity could be combined with the waterfront that would be accessible and usable for the population of Oslo. This competition was broad in its demands, from the requests on the issue of zoning, accessibility, ferry terminals, historical marina, etc. It would create a basis for the municipal decision in 1985 through which the path was laid for the new municipal plan for Oslo's central waterfront in 1988. The second competition was a mixture of architectural and urban design formats. The focus was given towards the realization capacity, spaces for public use both inside and outside, gradual development and multi-use (the whole day and the whole year). The third competition was more of a loose framework that would generate ideas for the transition between water and land. Its motto was: "if you want, you are allowed to participate". If one analyzes the size of the prizes given to the winning proposals in all three competitions, one may conclude that the second competition was the most important, having the total prize amount of 195,000 NOK, while the first one had a prize amount of 155,000 NOK and the third had only 50,000 NOK.

342 The competition jury consisted of the architect Birger Lambertz-Nilsen (the jury leader, proposed by Aker Group, he was also the member of the jury in the Trondheim University competition some fifteen years earlier), the architect Per Bonesmo (proposed by Norsk Forening for Bolig- og Byplanlegging, Oslo avdeling), the architecture professor Tobias Faber (MAA, proposed by the Nordic architect associations), the port authority commissioner Sverre Lende (proposed by the Oslo Port Authority), the architect Sven W. Meinich (the chief planner of Oslo, proposed by the municipality of Oslo), the lawyer Erik Melander (proposed by Akergruppen, the son of DnC boss Johan Melander), the planning coordinator Øistein Skipenes (proposed by the municipality of Oslo), the architect MNAL Jan Sigurd Østberg (proposed by Selskabet for Oslo Byes Vel), the landscape architect Bjarne Aasen (proposed by Norske landskapsarkitekters Forening).

343 "Kommentarer: Direktør Kjell Wester, Akergruppen," *St. Hallvard*, 1+2 (1983): 99.

planning office: the municipality would facilitate legal and political processes leading to the finalized zoning plan.³⁴⁴

Secondly, the question of facilitating interests from different sectors was important. This resulted in participation of the port authority commissioner, Sverre Lende, in the jury.³⁴⁵ His presence was essential as it could make the competition more legitimate providing a necessary political and procedural backing. The competition organizers were interested in getting a project that had a direct implementation potential and as such it had to enhance operatively the complexity of the situation.

Thirdly, the focus of the competition was to initiate a “constructive public debate, interest and engagement among the city’s population, while securing that the political decision making process has as wide and multifaceted starting point as possible”.³⁴⁶ As Oslo Byes Vel claimed, a public discussion on the scale of the new buildings, their programmatic content and their relation to the existing city was essential – the planning processes were not to be projected top-down any longer – they would involve several negotiating groups from the municipality, investors, politicians and users. The focus towards the public debate could be also read as a consequence of the significant transformations that Oslo center was facing: one year earlier, in 1982 there was the competition for the Vaterland area, launched after the debacle of DnC Vaterland project. These two competitions (the one for Vaterland and one for Aker Mekaniske Verksted and Vestbanen) would increase the area of Oslo center by 25%.³⁴⁷

The Framework of the Competition

The program for the competition consisted of several points varying in specificity, yet it projected a sense of complexity and seriousness. One of the initial points was the question of how the area was to be approached in terms of its zoning (regulation) and architecture. An interesting separation that may be discussed in two ways: On one side, it could be seen as a general distinction between the performativity of the plan and “looks” of architecture, where architecture is a subject of formal iconography, motives and styles. One should not forget that this competition was unfolding at the peak of the post-modern frenzy. On the other, it could be approached through the dialectic of plan and its architecture where the plan is accentuated as an open framework that articulates structural, infrastructural and programmatic disposition, and architecture is seen as *just* one of its numerous potential iterations. These two levels are interdependent of each other where predictably enough, the plan

344 One of the issues that illustrates changing procedures is the participation of the chief planner Sven W. Meinich in the jury. The municipality was hesitant to let him be a part of the jury because he would be in a direct position to influence the outcome. Interview with Sven W. Meinich and Mirza Mujezinović, 11/06/2015, Oslo.

345 Interview with Sven W. Meinich and Mirza Mujezinović, 11/06/2015, Oslo.

346 “Konkurranseprogram,” *St. Hallvard*, 1+2 (1983): 3.

347 *Ibid.*, 8.

formulates the overall developmental potential.³⁴⁸ In the 1980s, these would start performing as two independent chapters within the logic of property development: one architect could develop a zoning plan for a developer, to be later replaced by another architect that designs the build itself – an unthinkable scenario in the earlier period where the project as explicated, both through the plan and architecture, was the work of one architect.³⁴⁹

Another important issue addressed in the competition program was that concerning the relationship between the competition area, the remaining harbor and the existing city center. The competitors were to discuss how such a situation was to be enhanced in terms of future functions: the proposals were to optimize conditions for a high degree of flexibility and multi-use since the area was to function as a complex urban entity consisting of housing, offices, shops, recreation and spaces for “other forms of urban activities”. One should note that the competition program drew a clear distinction between functions that depended on public (communal) funding and those that had a commercial potential. The first ones were disregarded, as the area was to be financially sustainable – here, one may identify new neo-liberal reality slowly approaching. As such, commercial programs, especially those functioning as public attractions, were to create a basis for how the area was to be used. Competitors were asked to suggest “physical solutions, which are both useful and attractive, simultaneously as they are regarded as interesting in terms of channeling the necessary capital”.³⁵⁰ In that regard, the competition program suggested a hotel with four hundred rooms, and a conference center for 800–1,000 visitors, as Akergruppen was interested in developing such a project. In addition, competitors were asked to consider a possibility of locating an entertainment park (a theme park) in the area.³⁵¹

One of the clear prerequisites within the competition program was that of gradual development – phasing. The owner, Akergruppen, was interested in a development executed relatively quickly, with the last part developed after 1990 following the closure of Vestbanen railway station.³⁵² What was interesting within the competition program was the focus where the proposals

348 Here, the formulation of the developmental potential is equivalent to the creation of economic value. It is in the acquisition phase and the subsequent rezoning process that the project's financial value/potential is defined.

349 Interview with Sven W. Meinich and Mirza Mujezinović, 11/06/2015, Oslo.

350 “Konkurransens program,” *St. Hallvard* 1+2 (1983): 14.

351 One of the misconceptions in terms of the future development of Oslo was undoubtedly shown in Sven W. Meinich's comment in the aftermath of the competition: “We should not just put aside earlier decisions [relating to the city at large] and implement the winner proposals. There is a municipal decision for a new congress hotel at Vaterland. Aker Brygge would be a good place for such a program, but it would take away the essential prerequisite for the development of Vaterland. There is not enough place for two congress hotels in Oslo.” “Kommentarer: Byplansjef Sven Meinich,” *St. Hallvard* 1+2 (1983): 96.

352 By 1983, Vestbanen functioned as the city's westbound railway station, but the plans had been made for a tunnel connection under the city center through which the eastbound Østbanen station was to become the city's central station. The original date for its closure was 1985. Vestbanen was finally closed in 1989. For more information, refer to Trond Bergh, Helge Ryggvik, Jon Gulowsen, *Jernbane i Norge 1954–2004* (Bergen: Vigmstad & Bjørke, 2004).

were to enhance a design, which could be developed in stages. These were to be articulated so that they could function equally well both during the interim stages and when the whole development was finished. The infrastructural solutions (pedestrians and cars) were also to enhance the logic of phasing, as well as to approach car traffic at the City Hall plaza and the connection to the first city ring (Henrik Ibsen-ringen). Further on, the competition program suggested the topic of reuse and preservation, since there were several historical buildings on the site (the large industry hall and the old railway station building) – the competitors were asked to take an active stand on what was to be preserved and what was to be removed.

One important aspect was not discussed in competition program. There were no maximum heights or maximum floor-area-ratio (FAR) numbers defined in the competition program. There were only references for the inner Oslo area, for offices 2.5 FAR and for housing 1.5 FAR, with maximum height of five floors, simultaneously as it was accentuated that exemption from these rules was fairly possible.

What is visible in the competition program is the competition's urge for realism: the competitors were to suggest proposals, which had an implementation potential and a potential commercial logic (something that would be later coined a property development). This "realism" was to be illustrated through the mix of functions capable of "channeling the necessary capital" and phasing logic that would make this channeling effectively happen both from the very beginning and continually as the project was developed. In that sense, the competition program was extremely explicit about its aim: Akergruppen wanted to obtain a proposal through which it could directly identify economic potentialities, and as such, the project could be read through the lens of the emerging property development.

Watergate Affair: As Dense as Cod Roe

By the deadline on February 21, 1983, 178 proposals were submitted, 52 for the part one, 43 for the part two and 83 for the part three (where two were disqualified due to the anonymity regulations. Two months later, the jury had selected winning proposals. The winning proposal was 'Fint Snitt', made by architects Petter Bogen and Didrik Hvoslef-Eide (128–129), while the runner-up was the proposal 'Watergate' done by Telje-Torp-Aasen Arkitekter (130–131). The third prize went to the proposal 'Kroken', authored by Svein H. Bergersen, Øyvind Gromholt and Arvid Ottar.

As the processes after the competition started unfolding, the runner-up proposal 'Watergate', done by Telje-Torp-Aasen, would be selected as the project through which Aker Mekaniske Verksted was to be developed. This decision was made by Akergruppen after they had organized an *audition* with

the shortlisted architects.³⁵³

The reasons for this decision are numerous, both direct and indirect. Above all, ‘Watergate’ proposed the highest developmental potential of the three selected projects, as well as it had offered a clearer, yet more open, solution. In the interview with Aker’s project executive Kjell Wester, this comes forth:

‘Watergate’ was a better project from the perspective of a developer. The project had a higher density and a better structural disposition of the proposed building mass and as such, it could be developed further, something that would also be done by Fredrik’s brother Niels. The project had also secured better connections to the existing city. That [‘Fint Snitt’] could rather happen on the periphery and as such was not interesting; this [‘Watergate’] was rather interesting.³⁵⁴

Secondly, the practice of TTA, established in 1964, was in the spotlight as it won several competitions at the time, as well as one of their larger projects, the police headquarters in Oslo, was completed some years earlier. The practice had a necessary experience as it participated in quite a few urban development projects, for example, the one for the new Karl Johan’s quarters in 1971, alternative study for Vaterland/Grønlandstorg in the aftermath of DnC project in 1978, as well as it had conducted a study for the redevelopment of Vestbanen in 1979.³⁵⁵ As such, it was a worthy collaboration partner. Thirdly, it is reasonable to assume that there was a good amount of lobbying, and that TTA was good at it.³⁵⁶ Still, one may question why TTA’s proposal was not selected to begin with during the jury process. From the interview with Sven W. Meinich, one may read an eloquent tactical play by Akergruppen, which went along the jury decision about the first prize, as this project was relatively apologetic to the complexity of the situation without affecting the interests of Port Authority:

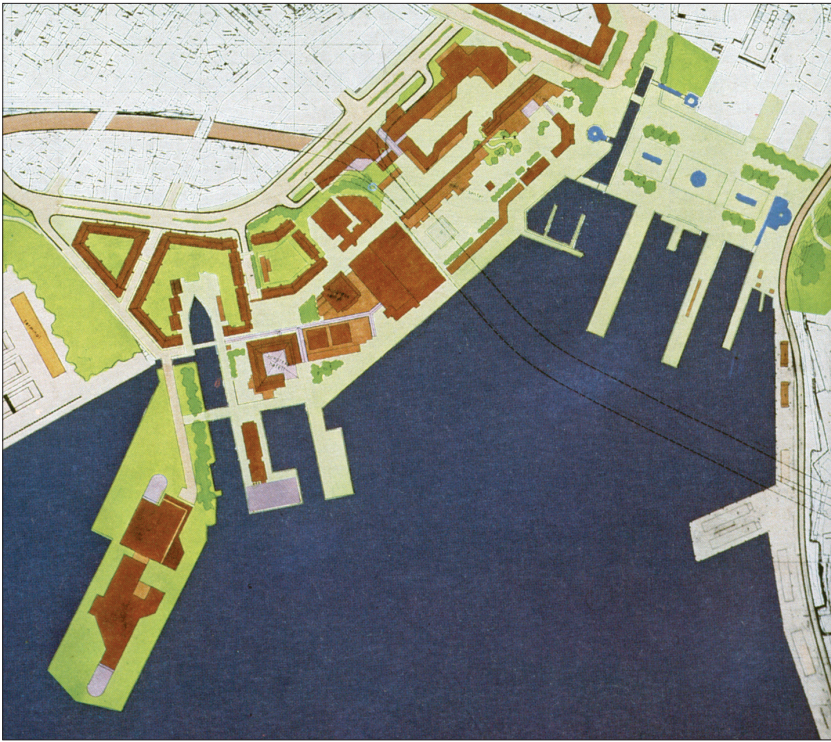
The first prize project ‘Fint Snitt’ was charming, but had too few square meters. A good economic potential was in the second prize project ‘Watergate’. Kjell Wester [lapsus linguae by Meinich, Akergruppen’s representative in the jury was lawyer Erik Melander]

353 Interview with Fredrik Torp and Mirza Mujezinović, 26/01/2012, Oslo.

354 Interview with Kjell Wester, by Halvor Weider Ellefsen and Mirza Mujezinović, 08/05/2012, Åmål.

355 Fredrik Torp accentuates the practice’s interest in working within the existing city when explaining the context leading to the competition: “We moved away from working outside the city with free-standing buildings. Our interest for the city would become more concrete. In a way, it became our arena.” Here he refers to the projects Karl Johan’s quarters and Grønlandstorg. Interview with Fredrik Torp and Mirza Mujezinović, 26/01/2012, Oslo.

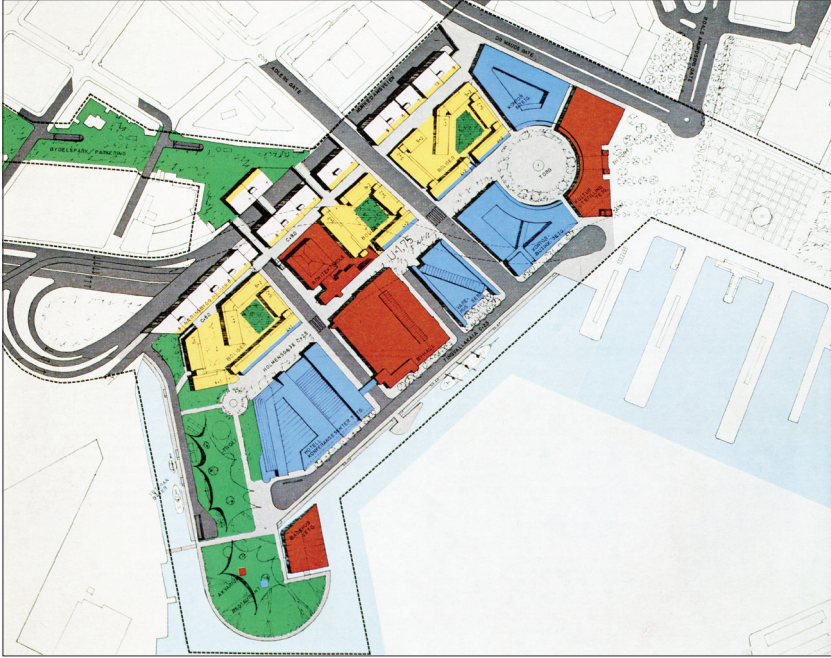
356 There were several meetings between Akersgruppen and TTA, without presence of any other instance, for example, municipality’s planning department or politicians. Meinich was well aware that something was happening in the background, but without knowing how concrete these negotiations were. Interview with Sven. W. Meinich and Mirza Mujezinović, 11/06/2015, Oslo.



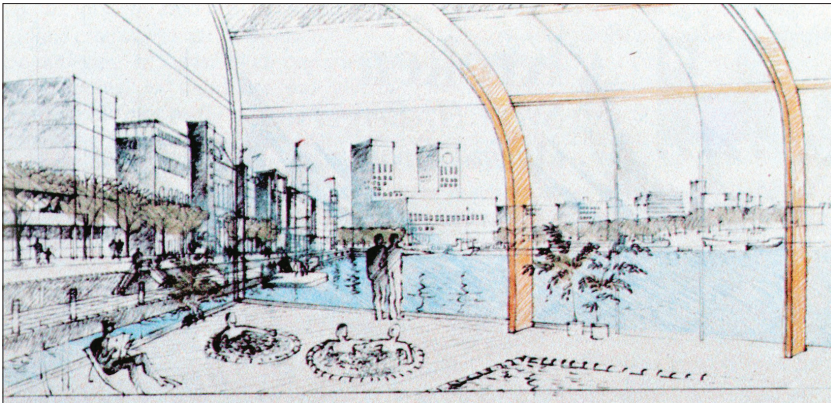
128: Situation plan, 'Fint Snitt', Petter Bogen and Didrik Hvoslef-Eide (Drawing: Architects).



129: Street view, 'Fint Snitt', Petter Bogen and Didrik Hvoslef-Eide (Illustration: Architects).



130: Situation plan, 'Watergate', Telje-Torp-Aasen (Drawing: TTA).



131: Fjord view, 'Watergate', Telje-Torp-Aasen (Illustration: TTA).

was an advocate for ‘Watergate’. What became apparent in the jury process was that the port commissioner, Sverre Lende, was negative towards the competition in general. The majority of the jury went in favor of ‘Fint Snitt’. Wester could have thought not to go against such a decision, as in that case he could jeopardize the whole process. His philosophy was to get a unanimous decision, and in the aftermath, Akergruppen would choose the ‘right’ project. He was well aware that Akergruppen was not legally bound to move forward with the first prize project.³⁵⁷

The winning proposal ‘Fint Snitt’ was based on a low-density scheme trying to create a differentiated visual appearance blending the old and the new with green ‘park-like’ sections. The scheme suggested a mixture of low and continuous building volumes adjacent to Hotel- and Congress center and the existing Verkstedshallen, The proposal reminded of small maritime towns on the Norwegian coast. Perhaps, that may be the reason why it managed to seduce the jury, which on the other side had praised the proposal for its “fantasy-driven realism”. The proposal was elaborate in the way that it had introduced a lively and cozy situation, similar to the ones appearing in the aforementioned 1978 book by Gullik Kollandsrud on the Norwegian small-scale wooden towns. It should be also noted that Didrik Hvoslef-Eide had published a theme article “Planlegging av feriearkitektur” in *Byggekunst* issue on “Feriearkitektur” [Small-scale Vacation Architecture].³⁵⁸ Here, one may read that he had ten years of working experience with vacation architecture and planning. I would argue that ‘Fint Snitt’ could be also seen as a continuation of Hvoslef-Eide ‘vacation project’, in how it aimed at articulating a specific environment, user groups, and traditional small-scale iconography. On the other hand, ‘Watergate’ was a proposal that had suggested a dense scheme with strong urban qualities, as Fredrik Torp put it in the interview:

The framework of the competition was a bit diffuse. We did not know what would happen later, neither that Aker was to build so much. Our proposal and the winning proposal were two different worlds. We understood that the site was one of the best ones in the kingdom of Norway. When you realize that, then you do not do some small stuff [småtter] like that. It has to be as dense as cod roe, tall and powerful. You put in it what you are capable of because these are the real demands and answers.³⁵⁹

357 Interview with Sven W. Meinich and Mirza Mujezinović, 11/06/2015, Oslo.

358 Didrik Hvoslef-Eide, “Planlegging av feriearkitektur,” *Byggekunst* 5 (1981): 225–227.

359 Interview with Fredrik Torp and Mirza Mujezinović, 26/01/2012, Oslo.

The project consisted of several city blocks, each with its own specific function (being either public related programs, offices, small-scale industry or housing) with shops and galleries on the ground level. The proposal had shown a clear attitude towards the articulation of the public spaces: it consisted of a system of green areas, streets, plazas and quays, simultaneously as it had pulled the streets from the surrounding context into the project. Above all, the project had an interesting presentational twist: one of its main illustrations was a drawing of the zoning plan showing each of the blocks with its own particular color-coding camouflaging the architectural intervention within the block itself. Architecture was secondary to the zoning setup, despite the fact that the architects had designed a scheme with a high degree of architectural articulation.

The proposals, ‘Fint Snitt’ and ‘Watergate’ offered two contrasting imaginaries and two different professional realities. The first prize proposal was of small-scale low density, while the runner-up was of higher density and with a clear urban attitude. The winner was a collaboration of two architects with their own respective small offices while the runner-up was done by a well-established office with some twenty years of experience and some of the major projects in Oslo in its portfolio.³⁶⁰

EMPIRICAL ANALYSIS

The following empirical analysis is structured around six aforementioned themes, inspired by Jacques Fredet: The large-scale projects in relation to the larger urban context; The large-scale projects in relation to the immediate surroundings; The mode of organization; Infrastructural principles; *Struktur* – Structure and Development possibilities. The same thematical structure is applied in all three cases.

The Project and the Larger Urban Context

In the introduction to the project, TTA discussed the urban expansion in the 1950s and the 1960s where the substantial part of Oslo’s population had moved to the suburban satellite developments. The architect argued that in the years preceding the competition, the city core was slowly reemerging both as a social meeting place and as a recreational area.³⁶¹ As previously mentioned,

³⁶⁰ In the interview Sigurd Østberg, the leader of Oslo Bys Vel and one of the organizers of the competition, referred to Telje-Trop-Aasen as a “jet set office winning almost about all competitions at the time”. Interview with Sigurd Østberg, Halvor Weider Ellefsen and Mirza Mujezinović, 10/04/2012, Oslo.

³⁶¹ Two years later, this tendency would be also touched upon in the interview with Kjell Wester, given to the national daily newspaper *Verdens Gang* (VG) in November 1985, under the title “Culture is a good business”. Here, he talked about necessity to re-conquer the city core by creating a differentiated place where “things happen,” fronted by a mixture of culture and entertainment. Kjell Wester in the interview with Astrid Slettbakk, “Kultur er god butikk,” *VG*, November 2, 1985, 59.

the interest for the inner city was already looming. The city center was being reinvented, both officially, in terms of planning strategies, and informally, in terms of public events. *Gatebruksplan* from 1973 may be seen as an example of the former while Oslo Carnival, arranged in the years from 1983 to 1986, as an example of the latter.³⁶² Within such a context, TTA discussed that new performances be added to the city center in order to make it more diverse and open. Subsequently, the transformation of Aker Mekaniske Verksted was seen as an intervention accentuating and stimulating these changes.³⁶³ The following analysis addresses to what degree the imaginary where the project was seen as a translator of a new type of urbanity (as referred earlier “the return to the city”), defined the project’s relationship towards the larger urban context. The analysis focuses on ramifications that such an understanding had on the formulation of the project.

The contours of the new operational framework appeared on two specific levels within the project. On one side, the site was a context with a high degree of existing urban complexity (structural, programmatic and infrastructural), and on the other, the project was to enhance realism – its underlying ideas were to be operational having immediate implementation potential.

The first issue entailed that the architect had to encounter a type of contextual complexity different from the one which Norwegian architects encountered during the urban expansion project of the 1950s and 1960s. The site, being an industrial compound with its own scale and complexity, was located between the fjord and E18 highway. It was in direct proximity to two of the most important monuments in the city: the city hall and the medieval castle Akershusfestning. (134) The compound contained several buildings with presumed historical value: being examples of the early industrial structures (Verkstedshallen) and those of railway history (Vestbanen).³⁶⁴ The architect explicitly acknowledged the existing (industrial) city and its inherent functions while being conscious of the emerging new post-industrial processes. The harbor activity was anticipated as essential due to its significant position within the overall economic context of the city. Subsequently, the future infrastructure (highway and railway) had to be optimized so that different modes of communication in the area would satisfy both the needs of the future Aker Brygge project and of the remaining harbor activity at Tjuvholmen and Phillipstad.

Another important aspect relating to the discussion on the contextual complexity was the fact that the architect chose to also include in the project

362 Oslo Carnival was stopped after 1986 mainly due to the fact that the hedonistic pleasures of urban life had grown out of hand and the city authorities chose to put an end to it.

363 This was similar to the anticipations that were introduced by the Danish consultants during the redevelopment of DnC Vaterland project some ten years earlier.

364 Here, one should keep in mind that the preservationist attitudes were slowly gaining presence already in the 1970s. The European Charter of the Architectural Heritage was adopted by the Committee of Ministers of the Council of Europe and was proclaimed at the Congress on the European Architectural Heritage held in Amsterdam in 1975. That year was proclaimed as the ‘Year of Architectural Heritage and Preservation’.

Vestbanen and the plaza in front of the city hall.³⁶⁵ This was a rather tactical point since by including these, it would explicitly make the project an extension of the city – the project would function as an addition to the city without any visible ruptures in between the old and the new. As shown in the project illustrations, the existing city could be read both as a background onto which the new future is carefully projected and as a conceptual framework that is translated into the project itself. (132–133)

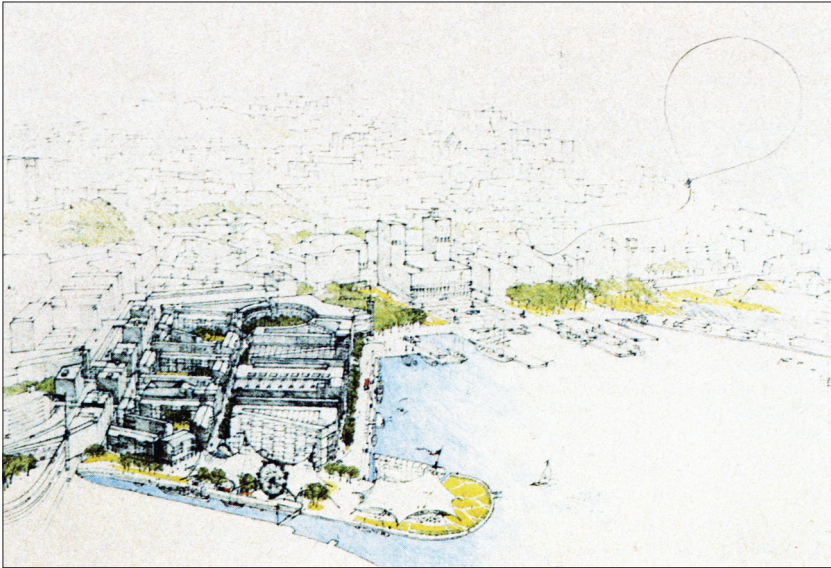
The second issue was that of the project's realism level. The architect accentuated that due to the site's immediate developmental potential, the suggested project was not to be that of speculations and ideas resulting in a non-binding and distant future. Rather, one was to suggest how the area was to be developed in terms of both itself and its relationship to the city. In that sense, the architect had concluded that the competition project inevitably had to be based "on the concretization of thoughts and visions simultaneously as these were to spring from the facts that we know today".³⁶⁶ Such a declarative statement may be read as an explicit indication of the architect's understanding of the emerging property development logic, where result-oriented and implementable visions would create the framework for architectural approach to the assignment.

The engagement with the city was basically synonymous with the engagement with the site itself precisely since the site offered a specter of overlapping complexities comparable to those present elsewhere within the city. As such, it may be read as an analogy to the idea of collage city, on one side encountering the different contextual layers in a bricolage manner, while utopian, unrealistic, thinking would be moderated.³⁶⁷ In that sense, the assignment, due to its size and complexity, would go beyond the exclusive transformation of the old industrial compound, being a pure building design assignment, but it would inhibit a framework for design of a city part, a city fragment. Within such a framework, the assignment would resonate on multiple levels: (1) how to relate to the notion of infrastructure being both barrier and access point; (2) how to relate to the notion of the existing urban context as the project was in direct adjacency to the existing city and its main monuments; and (3) it was to suggest how the public space was to function both in terms of the articulation of streets, plazas and waterfront boardwalks. The project embraced a realistic approach since it had to be pragmatic enough to encounter these different issues. One could also argue that precisely due to its size, the project would be able to be a frontrunner in the transformation processes that would unfold within the city: it had a critical mass and contextual complexity

³⁶⁵ This would change in the August 1984 reworked proposal, presented to the public and the municipal politicians.

³⁶⁶ *Norske arkitektkonkurranser*, 252 (1984): 26.

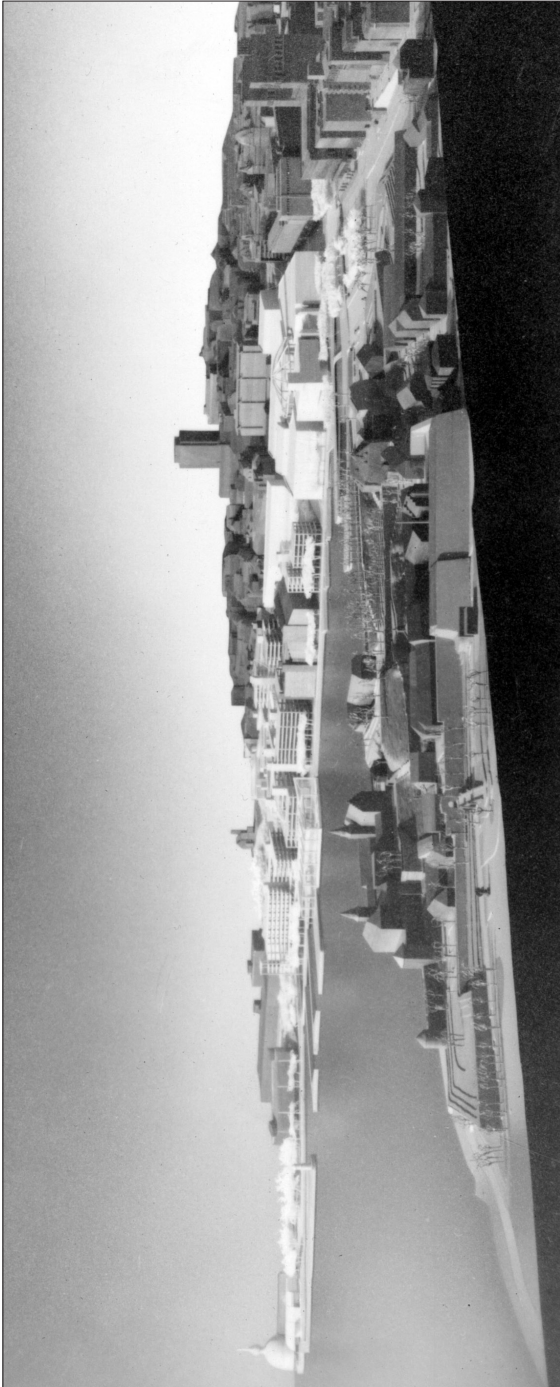
³⁶⁷ The concept of 'collage city' is taken from Colin Rowe/Fred Koetter's *Collage City* (Cambridge: The MIT Press, 1978).



132: Aerial view, the project in the foreground, the city in the background, 1983 (Illustration: TTA)



133: Situation plan, 1983 (Drawing: TTA).



134: Model, the view from east, Telje-Torp-Aasen, 1984 (Photo: TTA).

that was needed to create an image of the future city and its urbanity.³⁶⁸

In the case of Aker Brygge, it is the project's own complexity and the anticipated realism that had formulated the project's relationship to the larger urban context. The project built up its own relationship towards the larger urban context, and this happened on a level of narratives that dealt more with the contextual and implementation issues. In that sense, the unison understanding of the city as a whole would be given by the understanding of the city as a collection of incremental³⁶⁹ fragments. In this regard, the project's relationship to the larger urban context could be measured through its capability to formulate such a fragment.

The Project and the Immediate Context

The following analysis addresses how the architect's considerations on the immediate context structurally and programmatically influenced the project itself. If the previous analysis has aimed towards identification of the ideological framework within which the relationship between the city and the project would be formulated, this part of the analysis relates to the implementation and translation of this framework into the project itself. The aim is to decipher what happens in the meeting between the *large-scale* and the local context. Again, the empirical basis for this analysis is the textual description accompanying the competition proposal, as well as illustration material: the situation plan and a perspective showing the new City Hall plaza.

TTA summarizes the proposal through three main intentions. Firstly, the project was to re-create an attractive City Hall plaza. Secondly, it aimed to facilitate a pattern that would offer gradual development of a lively and diversified district – *bydel* – with a clearly defined relationship to the fjord and the existing city. Thirdly, it suggested a solution for Grunnlinjen (E18 highway tunnel beneath the area) along with the corresponding road connections to the city's western areas. The following analysis will address the first two aspects, while the issue of Grunnlinjen will be stressed in the part dealing with the project's infrastructure.

The reconstruction of the City Hall plaza was based on two intertwining intentions relating to the notions of softness and spatial articulation. On one side, by redirecting traffic (car and railway) into a tunnel, the City Hall plaza would enhance pedestrian activity, as well as it would function as “natural connection between the fjord and the city”.³⁷⁰ (133, 135–136) On the other, the development at Vestbanen and Aker Mekaniske would have the capacity

368 The exact size of the project was not specified in the competition material. The reworked proposal that was presented in August 1984 had a gross area of 162,000 m².

369 Notion of incremental refers to Barclay M. Hudson, “Comparison of Current Planning Theories: Counterparts and Contradictions,” *Journal of the American Planning Association*, Vol. 25 No. 4 October 1979.

370 *Norske arkitektkonkurranser* 252 (1984): 27.

“to give a more defined form to the plaza”.³⁷¹ The new ‘west wall’, which would incorporate the central façade of the existing Vestbanen building, would function as a landmark, as well as serving as an entrance portal to the new neighborhood, because according to the architect, the Vestbanen building was too small to offer a substantial mass to define the plaza’s west wall. Subsequently, the idea was to expand the Vestbanen building with a seven-story addition, which in size would also be contextualized with the adjacent Wilhelmsen building. The ‘west wall’ terminated by a small pseudo tower facing the fjord both to mark the plaza’s limits and to accentuate the change of the direction along which the building mass was to continue.

Such an approach could be understood as an ideological switch in the attitude towards the idea of public space, from the one exercised in TTA’s 1979 Vestbanen study project. (137–139) Similarly as in the 1983 competition proposal, the architect had argued that the 1979 project was “a way to imagine a neighborhood at Vestbanen and a new City Hall plaza”³⁷² while on the other it was to mobilize “the forces with an aim to promote urban values”.³⁷³ Vestbanen was to be developed as a neighborhood of multiple buildings organized by way of the format of city blocks where the streets from the adjacent areas were extended into the project (Cort Adlers gate and Dronning Mauds gate). However, the architect talked about structural and programmatic redefinition of the City Hall plaza. In this proposal, the west wall would be an active façade facing the plaza. The underlying reference was Peter Celsing’s Culture House at Stockholm’s Sergelstorg.³⁷⁴ It was a transparent culture house, exposing its numerous activities yet bridging over Dronning Mauds gate – being a spectacle in itself, something that was also explicated through a vivid perspective illustration.³⁷⁵

The 1979 Vestbanen proposal was influenced by a thought in which program was a promoter of urbanity – the west wall’s programmatic content would articulate and define the City Hall plaza. In the 1983 competition proposal, the west wall’s form and size were explicitly directed towards defining the plaza as a physical space – a solution based on the idea of a formal reading of space, quite similar to Robert Krier’s notion of urban space.³⁷⁶ The inclusion of the City Hall plaza and the focus on its west wall, however, could be understood

371 *Ibid.*, 27.

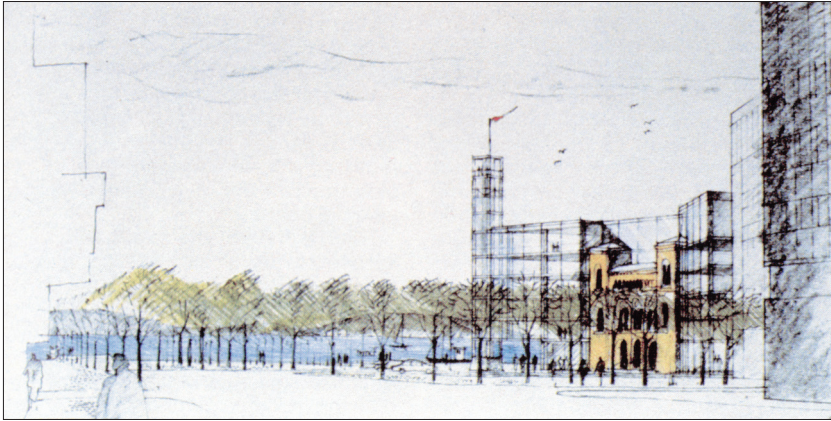
372 Fredrik A.S. Torp, “Bydel og bystruktur, boliger og brostensball,” *St. Hallvard* 4 (1979): 234.

373 *Ibid.*, 234.

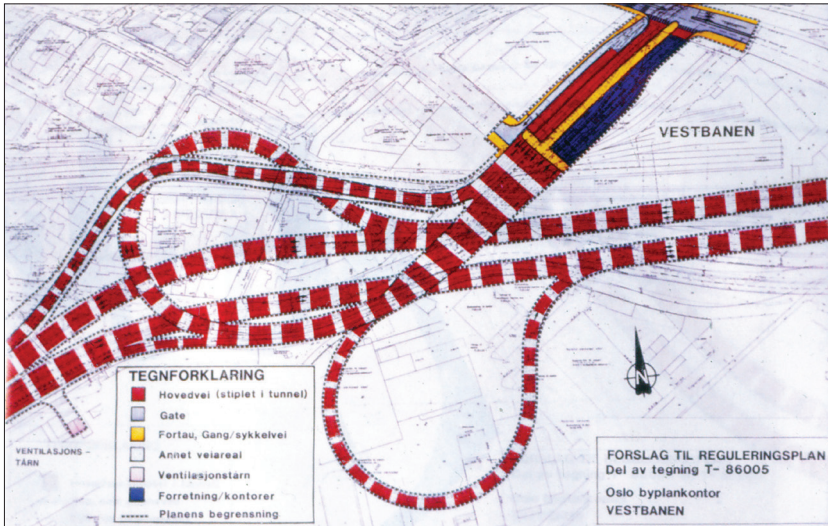
374 Interview with Fredrik Torp and Mirza Mujezinović, 26/01/2012, Oslo.

375 Drawings were done by Jørn Narud, who would later become one of the partners in Narud-Stokke-Wiig, one of the largest architectural practices in Norway. The original drawings are in 1.5 x 4 meter format, and are stored in the archives of TTA (now LMR-Arkitektur AS).

376 The echoing of Robert Krier is unavoidable here: “If we wish to clarify the concept of urban space without imposing aesthetic criteria, we are compelled to designate all types of space between buildings in towns and other localities as urban space. This space is geometrically bounded by a variety of elevations. It is only the clear legibility of its geometrical characteristics and aesthetic qualities which allows us consciously to perceive external space as urban space.” Robert Krier, *Urban Space* (London: Academy Editions, 1979), 15.



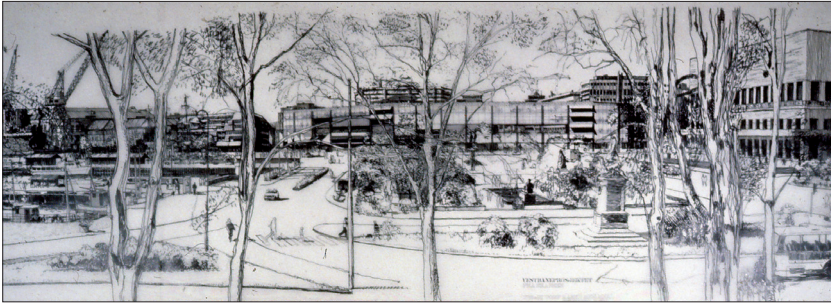
135: Street view, The City Hall plaza redefined, 1983 (Illustration: TTA).



136: Infrastructural complexity under the project. The plan shows one of several alternatives for the future tunnel under the City Hall plaza (Drawing: Oslo Byplankontor).



137: Model, the view from east. Vestbane project, Telje-Torp-Aasen, 1979 (Photo: TTA).



138: The new City Hall plaza and Vestbanen, Vestbane project, Telje-Torp-Aasen, 1979 (Illustration: Jørn Narud/TTA).



139: The view from Tingvallakaia, Vestbane project, Telje-Torp-Aasen, 1979 (Illustration: Jørn Narud/TTA).

as a strategic way to illustrate a *rupture-less* transition between the project and the city:

It was all about stitching the city together and giving it continuity in the rupture caused by the old train station at Vestbanen. It was an attempt to create an order. From a formal perspective, such an approach was very dramatic, unlike the project itself. We got a lot negative critique because of that. Yes, we did.³⁷⁷

Within such an equation, it was important to suggest a clear relationship between the open space of the City Hall plaza and the built space of the future project. To articulate the plaza and the project were two separate, yet strategically intertwined interventions.

A similar intention, regarding a *rupture-less* transition, was also projected towards the northern interface between the project and the adjacent Vika area. TTA was clear in the textual description: The future project was to secure the specificity of the surrounding neighborhoods, especially of the unfinished Vika area, in terms of functions, streets, pedestrian paths, visual lines and building envelopes.³⁷⁸ As such, the project would revolve around the idea of a lively and diversified district – *bydel*. Here, the architect addressed the new ground level as a continuous topography descending from Russeløkka to the City Hall plaza, Tingvallakaia and to Tjuvholmen, while resulting in a more natural connection between the surrounding city and the fjord. This kind of sensibility towards the landscape as an integrative element of the urban setup, as well as the understanding of the city through the particularity of its neighborhoods, was becoming a way to read Oslo as an urban structure.³⁷⁹

These intentions were explicitly translated into the project, despite the constraints set by the presence of heavy infrastructure. As the situation plan shows, the issue of integrating the project with the immediate context was dependent on infrastructural solutions. Munkedamsveien would function as the northern border of the project – it would also be the western beginning of the city's Ring 1 and the connection to the E18 highway (which was to be submerged under the city center). The consequence of such an intervention was that Munkedamsveien would be a culvert road: being an open yet

³⁷⁷ Interview with Fredrik Torp and Mirza Mujezinović, 26/01/2012, Oslo.

³⁷⁸ *Norske arkitektkonkurranser*, 252 (1984): 27.

³⁷⁹ An important contribution to such an understanding was Christian Norberg-Schulz's 1979 book *Genius Loci: Towards the Phenomenology of Architecture*. I would also mention Thomas Thiis-Evensen's book *Steder i Oslo* (Oslo: Dreyers Forlag, 1975). Here, Oslo is discussed specifically through its topographical features and their articulation within the 19th century city. The structure of the book illustrates the zeitgeist of the period, having chapters: The City – Oslo in the Landscape [Byen – Oslo i Landskapet]; The Street [Gaten: Karl Johans gate]; The Plaza [Plassen: Sehesteds plass og Gyldenløves plass]; The Neighborhood [Bydelen: Homansbyen, Frogner og Grünerløkka]; The Buildings [Enkelbygget: Trefoldighetskirken og Frognerseteren].

submerged, one level down from the continuous datum of the surroundings. In that sense, Munkedamsveien would be a rupture between the project and its immediate context. This was solved through a series of pedestrian bridges and car-pedestrian bridges. Three pedestrian bridges would lead to the project from the future park area, suggested on the roof of the large parking house placed on the former railway tracks, while two car-pedestrian bridges would function as extensions of the existing streets Cort Adlersgate and Dronning Maudsgate.

Finally, how did the project's relationship to Rådshusplassen and to Vika/Ruseløkka area relate to each other and to the notion of the large-scale? One could argue that these two relationships complemented each other. The project, due to its size, was capable of having multiple roles. On one side, the project was re-instating the City Hall plaza through introduction of the west wall that would also function as an entrance to the new urban district of Aker Brygge. On the other side, the filtering of the immediate surroundings, the areas of Vika and Ruseløkka, was a way to make the project grow off the existing city, where the continuity of the topography and the integration with the existing surroundings were inherent parts of an urbanist and architectural intention. In addition, the inclusion of the immediate context into the project itself was a way to inject a set of constraints, which would help inform the conceptualization and further articulation of the large-scale. For example, the extension of the existing streets into the project explicitly influenced the disposition of the building mass. In that sense, the grand idea that was usually projected onto equivalent projects of the similar scale, for example of DnC Vaterland, was replaced by a grand strategy – a set of pragmatic ideas that were dealing more with the project's relation to its immediate context than with the autonomy of the project itself.

The Mode of Organization

In the previous two analyses, the aim has been to discuss Aker Brygge's relation to an outside context: two external conditions, that of the larger city scale and that of the immediate surrounding context. The following analysis will explore the interiority of the project – it will ask the question what architectural imaginaries and analogies were embedded in the project in terms of modes of organization and to what degree these again were translated into the physical structure. It will focus on the project's textual descriptions – what the architects intended to do, and how they actually did it as explicated in the ground plan drawing with corresponding longitudinal section and elevation towards the fjord.

The above-mentioned notion of the district was a departing point for the project. Its contextualization unfolded through imaginaries relating to the

analogy of traditional city. On one side, this analogy dealt with the articulation of a multi-programmed density achieved through a collage of new building masses and reused industrial structures. On the other, it focused on articulating the notion of *publicness* – the project as a pedestrian complex.

In the introductory description, the architect explained the overarching intentions combining the notion of industrial heritage and emerging waterfront urbanity: the project was to be extrovert and pedestrian-oriented while reconquering the existing workshop halls and the quays. The architect argued that it was essential to adapt the new development to the scale of these existing structures, as the workshop halls represented something important for the city.³⁸⁰ This may be also read as a strategic legitimization, as the scale of the industrial compound would open up for a higher density and therefore a higher developmental-economic potential, as well as it was anything other than the prevailing tendency defined by *tett-og-lav* ideology seen in the winning proposal. Several years later, this overarching narrative relating to the volumetric disposition would open up possibility of additional refinement and articulation of scale in the implementation phase. This would be especially visible in Niels Torp's modified second stage project where volumetric subdivisions combined with iconographic variation would result in a highly articulate piece of urban architecture.

The reading of potentials within the existing structures and capability to translate these into a coherent project could be approached through different perspectives. Besides apparent immediate financial potential, Akergruppen's attitude towards the reuse and rehabilitation was also given by the fact that the company had an expertise needed for the execution of such an assignment.³⁸¹

Secondly, the architect was equivalently capable of solving this assignment. One of the projects, which illustrate such a capability, is the project for the reuse and redevelopment of Karl Johan quarters. (140–141) After doing several rehabilitations at Oslo's eastern district of Grünerløkka, TTA with their project marked a breakthrough in terms of how city renewal projects were conducted

380 *Norske arkitektkonkurranser*, 252 (1984): 27.

381 Akergruppen's representative in Aker Brygge project was structural engineer Kjell Wester. Prior to his involvement with Aker Mekaniske/Aker Brygge in 1983, he had a long portfolio in the construction and real estate field. He entered Aker through Ellingsens Mekaniske Verksted at Verdal (later bought by Akergruppen) where he was involved with the construction of industrial facilities in steel for shipbuilding. In the late 1970s, Wester would also work for Tor Andenæs AS, where he was in charge of production engaging a wide specter of activities and building assignments, from traditional contractor related ones to property development, from small-scale two-family housing developments to transformation of the existing large-sale industrial structures. Here he would learn techniques for how to reuse, rehabilitate (along with new complementing buildings) and redevelop properties in the central urban areas, something that was highly complicated due to the strict legal regulations at the time. Just before the competition, Wester returned to Aker where he was in charge of the project for Dock 15 (at Tjuvholmen, adjacent to Aker Brygge). Aker would re-establish its engineering facilities (Aker Engineering Company) aiming at oil-related activity. Interview with Kjell Wester, by Halvor Weider Ellefsen and Mirza Mujezinović, 08/05/2012, Åmål.

in the 1970s:³⁸² the rehabilitation of old buildings was to be combined with demolition of those structures that were in a too bad condition and the construction of the new ones.³⁸³ As such, it was different from other circulating proposals, suggested in the preceding forty years, because it preserved many of the old buildings, as well as it offered a pragmatic developmental planning strategy within which the issues of programming, flexibility, gradual development, and preservation were enhanced. In his description of the Karl Johan project, Fredrik Torp accentuates the importance of the existing context: “We were interested in looking and finding traces in the city’s topography and character, something that could be sustained and renewed. As such, a project would become a new piece in the overall development of the city.”³⁸⁴ What is important to emphasize here is the fact that, unlike other participating architects, who favored total renovation of the area and implementation of radical high-rise proposals, TTA was a pragmatic planner whose aim was to make the project realistic and capable of implementation.³⁸⁵ TTA had taken into account the needs of each of the property owners, so that any potential in-between conflict could be avoided – contrasting Mjelva’s prize-winning design which neglected the complexities of the site, property lines and existing structures.

Thirdly, the transformation of Aker’s industrial compound could be seen in relation to ideas about urban revitalization coming from the US.³⁸⁶ In the interview with Aker’s Kjell Wester, it becomes clear that these ideas made an impact on the project team:

It was a fantastic little tour to America. We knew of people there who were good with mixing of functions and the type of shopping we wanted to introduce – the festival market place. Through our connections, we met people from Rouse Development, who did some great things like project at South Street Seaport on Manhattan and projects in harbor areas of San Francisco and Boston. It was very interesting to see how they approached the establishment of shopping in the existing central areas, the absolute opposite of the shopping mall boxes found in the periphery. We were enchanted and tried to get them to Oslo. What

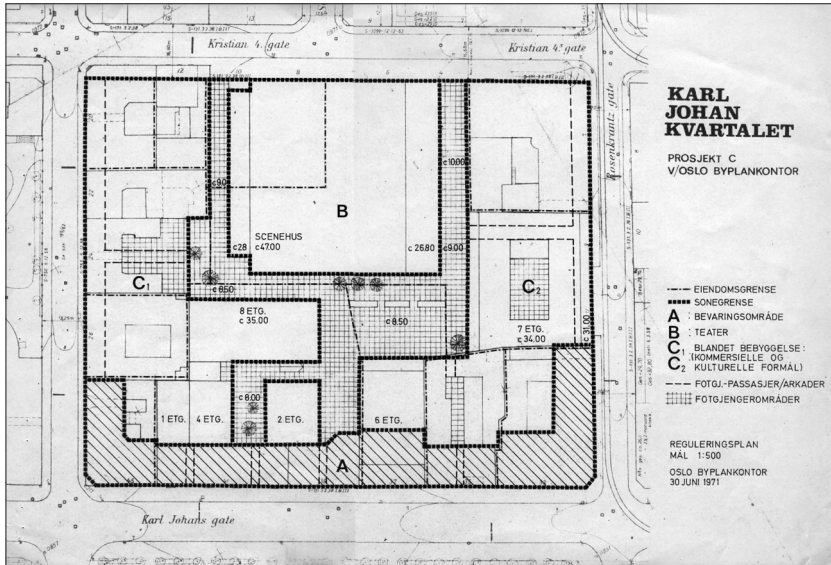
382 Fredrik Torp explains: “We were a frugal office. We have never made a spectacular architecture. We thought that every place has its own solution. This solution should be made in the way that you can see that we have been there, but we will never talk loud. There is something about adapting yourself to the totality. What does the place need? What do we have to do to fix the place, to take it further?” Interview with Fredrik Torp and Mirza Mujezinović, 26/01/2012, Oslo.

383 Arne Lie Christensen, *Karl Johans fasader* (Oslo: Pax Forlag A/S, 2007), 270.

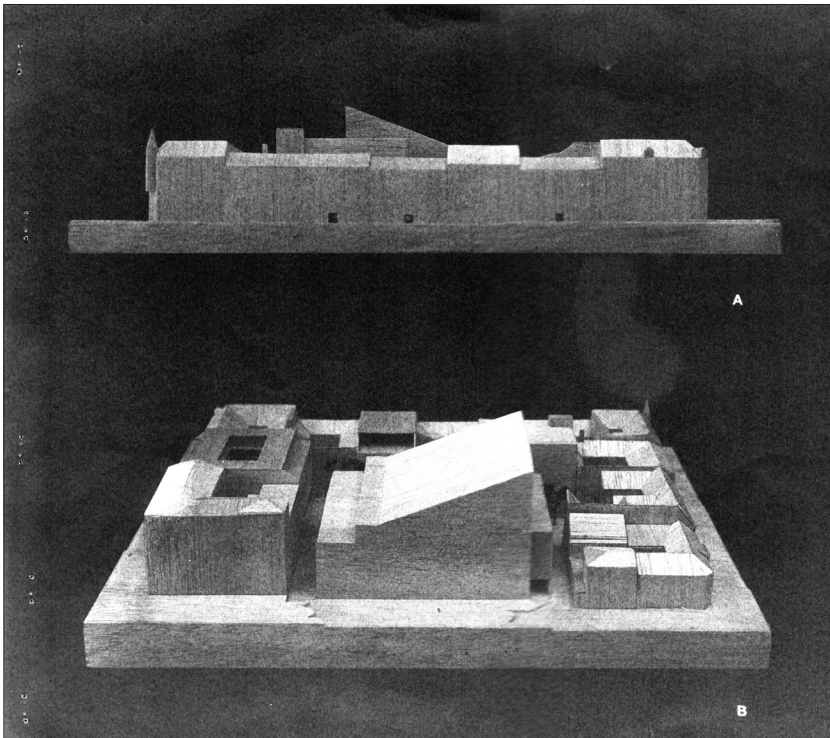
384 Interview with Fredrik Torp and Mirza Mujezinović, 26/01/2012, Oslo.

385 *Ibid.*, 269.

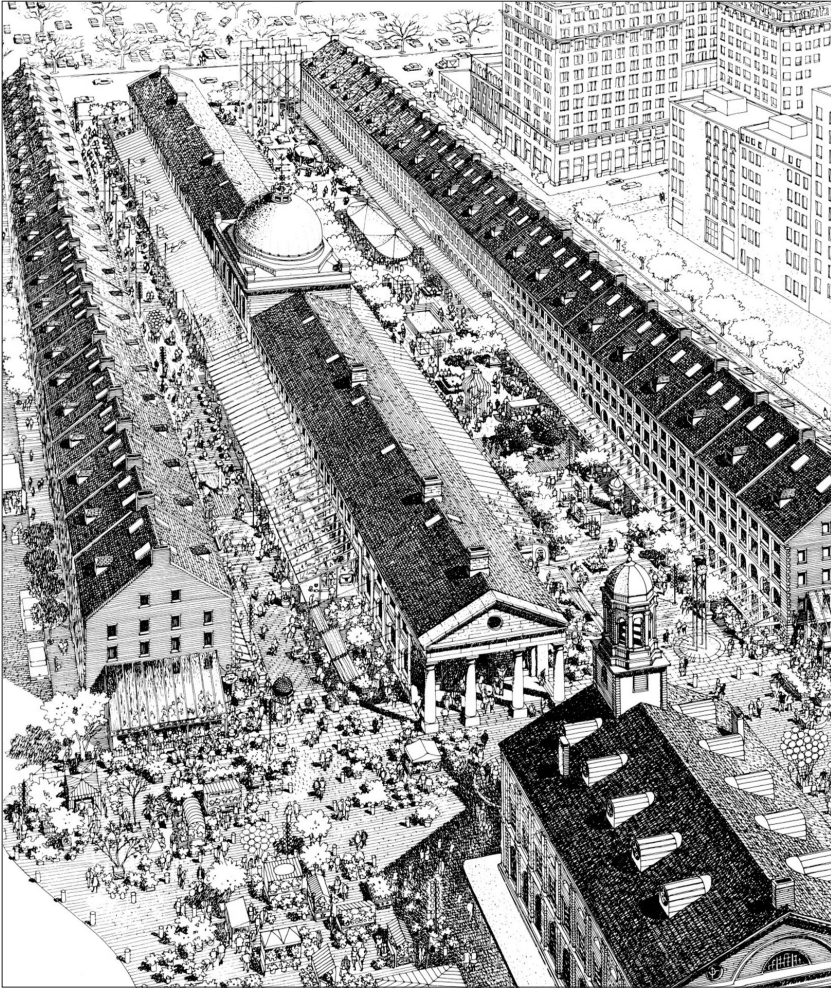
386 Akergruppen’s Kjell Wester, a contractor representative from Åke Larson, and the architect Fredrik Torp from TTA went on a study (business) trip to the US in 1984, some half a year after competition was decided. Here, Torp mentions references like Pier 38 in San Francisco, revitalization projects in Baltimore, Boston and New York. Interview with Fredrik Torp and Mirza Mujezinović, 26/01/2012, Oslo.



140: Plan, Karl Johan Kvartalet – Project C, Telje-Torp-Aasen, 1971 (Drawing: TTA).



141: Model, Karl Johan Kvartalet – Project C, Telje-Torp-Aasen, 1971 (Photo: TTA).



142: Quincy Market, Boston (Drawing: Benjamin Thompson Associates).

interested us was the conceptual framework and not the underlying economic rationale. We were interested in their philosophy of how to mix functions, shopping and entertainment into one compact entity. South Street Seaport is highly compact; the same could be said of the projects in San Francisco, Boston and Baltimore.³⁸⁷

Here, it necessary to mention developer James Rouse's and architect Benjamin C. Thompson's projects for Boston's Quincy Market (142) and Baltimore's Harborplace, revolving around the idea of a festival market. The former was placed in and around three former 170-meter-long warehouses.³⁸⁸ Through the concept of adaptive reuse, these structures were turned into 10,000 m² of shops, cafés and restaurants while four of the adjacent streets were pedestrianized, resulting in an attractive and visitor-friendly outdoor urban complex.³⁸⁹ The latter was a waterfront project conceptualized as a destination, "a kind of self-contained island that is not intrinsically tied with the city,"³⁹⁰ yet offering a mixture of entertainment, culture and numerous dining facilities.

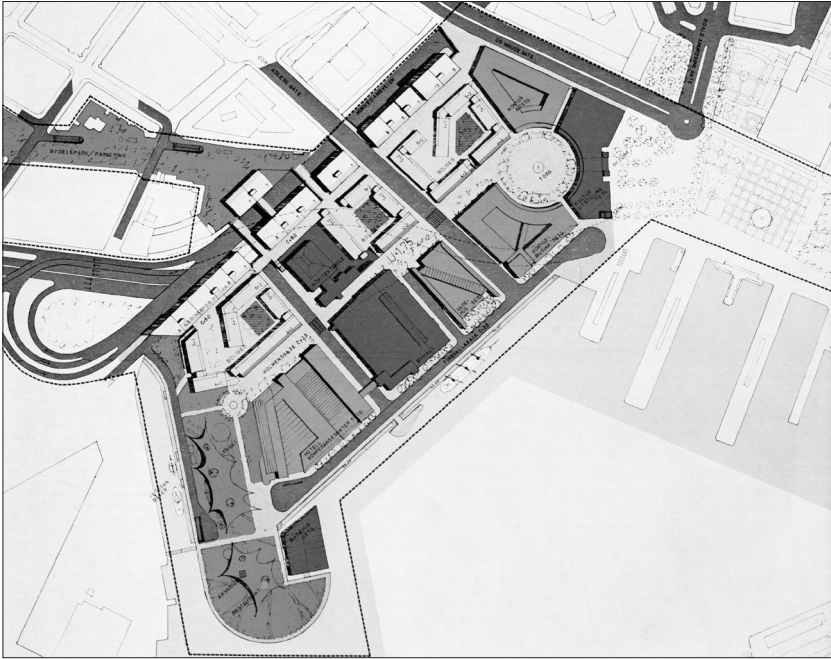
Undoubtedly, the project could be read as an interplay between these perspectives: An imported imaginary translated by the architect into a local iteration synthesizing different contextual complexities while being embraced by the client as a developmental model with a good financial potential. This resulted in a plan combining existing industrial structures and new ones, while having an actively programmed ground level. (143–144) The project was divided into three rows of blocks where each would be influenced by its immediate context. One row of blocks would directly face the fjord and the boardwalk; the inner block row would be orientated towards the pedestrian street, while the last row of blocks (or rather lamellas) would be a buffer between the suggested city highway infrastructure and the rest of the development. Each block would actually be one singular building, supposedly designed by one architect. The size of the block buildings in the first two rows was motivated by the size of the existing workshop building. In addition, the

387 It should be also noted that the consultants from the Rouse Company visited Oslo as a part of consultancy work for Akergruppen. Instead of Aker Mekaniske/Aker Brygge, they had recommended Bogstadveien as an area for development of shopping-leisure-culture zone in Oslo. Interview with Kjell Wester, by Halvor Weider Ellefsen and Mirza Mujezinović, 08/05/2012, Åmål.

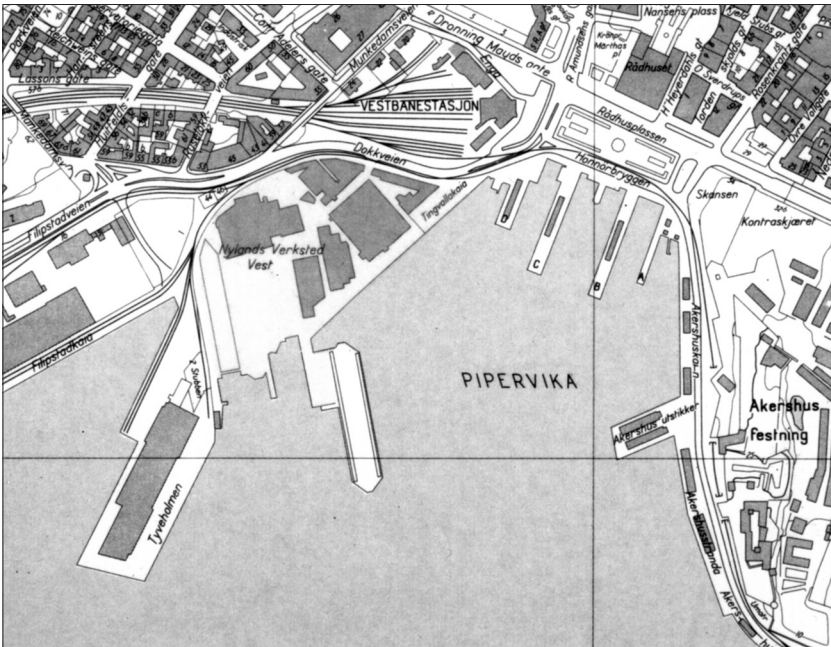
388 Quincy Market, the first phase of the Faneuil Hall project, opened in 1976. Dedicated, in Thompson's words, to "the sight and smell of food, the cornerstone of human commerce", the 150-year-old market hall was filled with restaurants and specialty shops where one could buy fresh herbs, raw oysters, coffee beans and Chinese cooking supplies. David W. Dunlap, "Benjamin C. Thompson, 84, Architect Of Festive Urban Marketplaces, Is Dead," *New York Times*, New York City, 20/08/2002, <http://www.nytimes.com/2002/08/20/arts/benjamin-c-thompson-84-architect-of-festive-urban-marketplaces-is-dead.html>.

389 Benjamin C. Thompson in an interview with Barbaralee Diamonstein-Spielvogel, "American Architecture Now: Benjamin C. Thompson, 1984", Part of the Diamonstein-Spielvogel Video Archive in the Duke University Libraries, <https://www.youtube.com/watch?v=MmagBmUfT6g>.

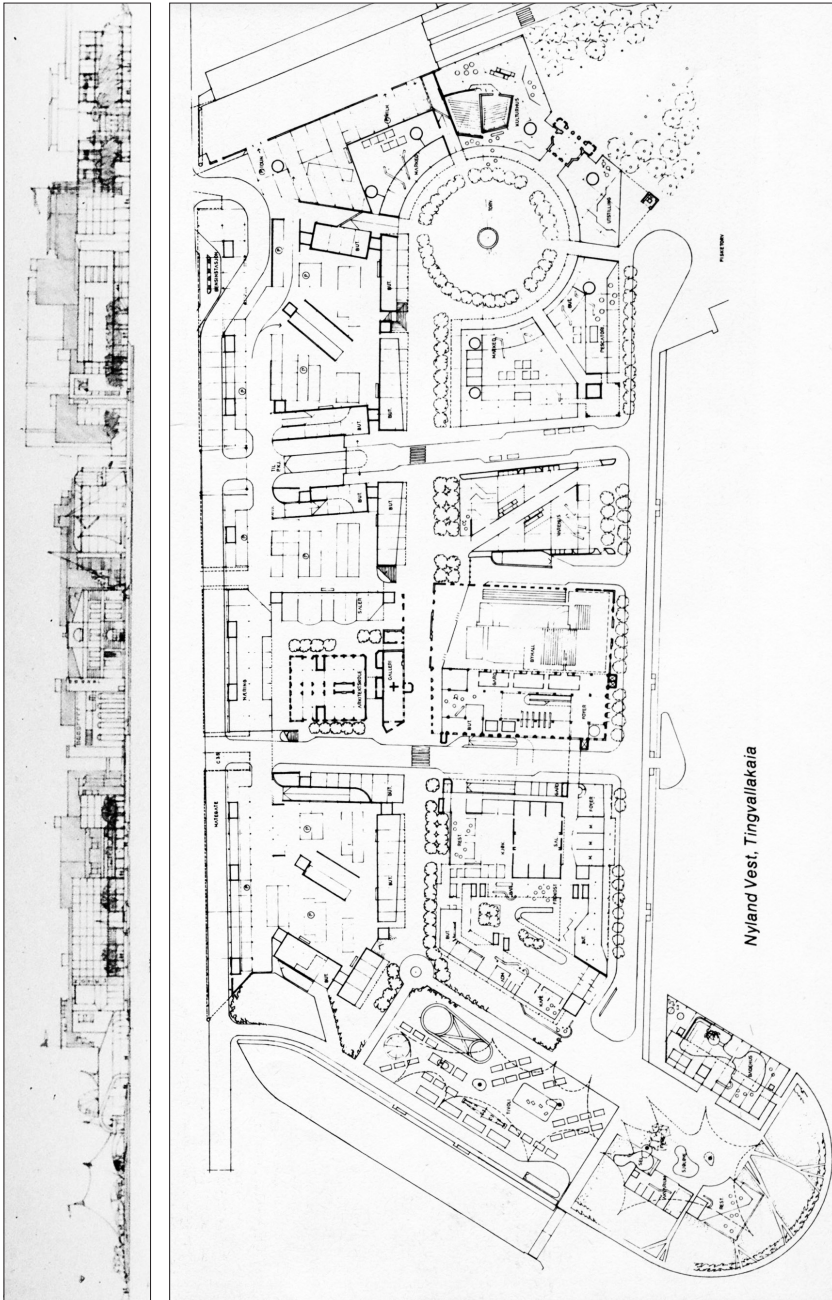
390 Benjamin C. Thompson in an interview with Barbaralee Diamonstein-Spielvogel, "American Architecture Now: Benjamin C. Thompson, 1984", Part of the Diamonstein-Spielvogel Video Archive in the Duke University Libraries, <https://www.youtube.com/watch?v=MmagBmUfT6g>.



143: Situation plan, 1983 (Drawing: TTA).



144: Situation plan, the pre-1983 situation with existing buildings (Image: Dokveien 1 brochure/ found in TTA's archive).



145: Elevation fjord; and plan, ground floor, 1983 (Drawing: TTA)

existing buildings that diverged from the orthogonal direction given by the main workshop and Holmensgate, were demolished, giving the possibility of a more rational plan layout – something that indicates a highly pragmatic approach by the architect. Each block building in these first two rows would contain one particular program, but with the ground level accentuating public functions, either those inherent and complementary to the main program within the block or the other more independent ones like shops, restaurants or other exhibition spaces.

The above-mentioned *publicness* of the project was also visible in how the existing structures were suggested to be reused: the large workshop hall was presented as a perforated building structure with multiple entrances, as well as being a multipurpose performance hall. The building itself was to be easily accessible and it would maintain direct visual connection with outside. Its activities were exposed to the adjacent streets. The same approach was also applied to another existing structure turned into a school of architecture. Similarly, the new buildings enacted an equivalent degree of openness by introducing a large number of smaller shops, restaurants and exhibition spaces. Their ground plan attempted to erase the distinction of an outside and an inside: the streets within the project flew into the block buildings so that the whole project seemed as one continuous building. (145)

I would argue that these strategies – one relating to the block setup and the other about accentuation of the public traits of the project, could be read as a way to enhance a city-like complexity and a way to show that the project was in fact an extension of the existing city. Aker Brygge would be conceptualized through a plan of manageable plots – building blocks – programmed with public-related functions on the ground floor while also offering a spatial solution that was highly articulated in terms of its scale and city-like image. A collage of different architectures taking place within the project enhanced this analogy: from Frei Otto's tensile structures, which would house Aker Brygge's Tivoli area to the west; the shopping arcade in department store, which would later become Terminal building; Sverre Fehn-like ramp frivolity in the ground floor lobbies. The presumed complexity was also visible in the elevation: the project's façade towards the fjord consisted of different architectures – the swimming arena with its shell structure, the hotel with its glass curtain walls, and the existing workshop building with its old industrial brick walls, followed up by pseudo-modernist architecture at Vestbanen.

Finally, the city-like complexity and the understanding of it through the programmatic prism of *publicness* as explicated through culture, leisure, entertainment and shopping activities as attractors of people; and through the

structural layout of block buildings, streets and plazas, undoubtedly had created a set of operative approaches through which the large-scale was encountered. These aspects could be seen as a set of equally ideological and pragmatic constraints. This was also very much in accordance with the tendencies of the time, where the interest for the city was emerging both locally and internationally, referring back to James Rouse's "The Cities are Fun". After all, one may speculate to what degree the architect's fascination for the old high-density shipbuilding compound had also an additional origin: on one side it was equivalent to the modernist obsession with industrial imaginaries, while on the other it was an inherent part of the Norwegian maritime history and its underlying iconography. Either way, this proposal had managed to offer an architectural form through which the large-scale was effectively implemented, being equally favored by the general public, developers and politicians – the simulation of the city and its *publicness* turned as a decisive driving force capable of projecting seductive narratives about what the city is and what it should be.

Infrastructure Principles

The following analysis addresses how the large-scale absorbs infrastructure constraints within a framework of a privately driven waterfront project. It approaches the transformation of Aker Mekaniske on two levels: on one side, it deals with the project's encounter with the infrastructure of the city, and on the other, it discusses infrastructure principles within the project itself. The material used in this analysis is the project's textual description, the colored situation plan and the ground plan enclosed in the competition proposal. In addition, I base my discussions also on the interviews with architect Fredrik Torp and Akergruppen's Kjell Wester.

In the early 1980s, the city center was amidst major infrastructural modernization – the new railway tunnel was being built, while there had been ongoing discussions regarding motorway E18 and its interchange with the city's Ring 1. TTA and its consultants³⁹¹ proposed the connection between E18 and Munkedamsveien as an efficient interchange in two levels where the adjoining traffic from the harbor at Phillipstad was to be included.³⁹² The highway was partially submerged as well as it was bridged over at Cort

391 The team consultants in the competition were Tore Christoffersen and Erik Hultgreen. The latter would start his own consultancy in 1986, after twelve years at Tore Christoffersen's office. The new firm 'Ingeniørene Siem & Hultgreen' would be involved in numerous large-scale projects with professionalized clients and contactors; they have contributed to development of Tjuvholmen and Helsefyr Atrium, among others.

392 The interchange was originally planned by the state road authorities to be at Vestbanen railway station since this area was to be liberated after the construction of the main railway tunnel beneath the city center. These plans had sparked of a considerate local engagement, which at the end culminated with the competition "Byen og Fjorden – Oslo år 2000", as a way to re-imagine the affected areas. Interview with Jan Sigurd Østberg by Halvor Weider Ellefsen and Mirza Mujezinović, 14/05/2012, Oslo.

Adlersgate and Dronning Maudsgate. As discussed earlier, such an approach made it possible for the project to be seen as a continuation of the city. I would argue that the project's relationship to the city infrastructure was encountered through the economy of the project's own spatial and programmatic setup. The architect did solve infrastructure, but the project's own economy as seen through the perspective of multi-programmed density and *publicness* influenced the infrastructural solutions. A more integrated approach was in the making where the issue of infrastructure was not the main, but one of the several intertwining ones – something similar was attempted in the post-1972 DnC Vaterland project, but without any considerable success. This could be also related to Olav Selvaag's developer manifesto *Oslo as a Dream Place*³⁹³ from 1985, where he intertwined notions of economy, housing production and infrastructure as a revitalization strategy for the city's central areas. (147–148) To open up developmental potential along the fjord's shoreline, Selvaag suggested a submerged tunnel system for the city's E18 motorway and railway, resulting in leisure and recreational areas combined with a high-density terrace housing development. Despite its conceptual rigidity, the manifesto projected a clear understanding of infrastructure's spatial footprint within the developer logic. As such, infrastructure was presumably limited, while being a part of an integrative approach.

Pedestrianization was a necessary precondition for a successful urban character of the neighborhood, something that came forth from Boston's Quincy Market. Within this context, pedestrian traffic was articulated as a dominant mode of movement,³⁹⁴ with some areas being exclusively reserved for pedestrians, such as the outer most area to the west (Tivoli, Aquarium and Swim House), the inner street of Holmengate and the circular plaza behind the Vestbanen. Such an approach was given by the fact that the project had a clear underlying infrastructural layout: the main portion of car and service traffic was placed on the backside in proximity to Munkedamsveien and was channeled along designated routes. When approaching from the city, the pedestrians would find several passageways, via the City Hall plaza and the quays into the project. (146) These passages would also condition the scale of the project and its interaction with the surrounding context: "All these [passages] have a great importance for the partition of building mass and for the intention of creating a natural transition between the surrounding city areas and the fjord."³⁹⁵

The way pedestrian layer was solved relates also to the development of the waterfront idea and the absorption of the above-mentioned American references, like those from Boston and Baltimore. As shown in TTA's

393 Olav Selvaag, *Oslo som drømmested* (Oslo: Gyldendal Norsk Forlag, 1985).

394 *Norske arkitektkonkurranser*, 252 (1984): 27.

395 *Ibid.*, 27.

competition proposal Cort Adlersgate, with its vehicular traffic, went towards the fjord and connected to Tingvallakaia. Consequently, Tingvallakaia, would also contain vehicular traffic despite that it was the most attractive area with exposure to the city hall, Akershusfestningen and the fjord. (146) The traffic would not be of a great intensity; still the vehicles would be present. The pedestrians were to circulate on the sidewalks and the adjacent boardwalk along the quay (Tingvallakaia). Bringing the vehicular traffic to the waterfront was a solution disfavored also by the jury.

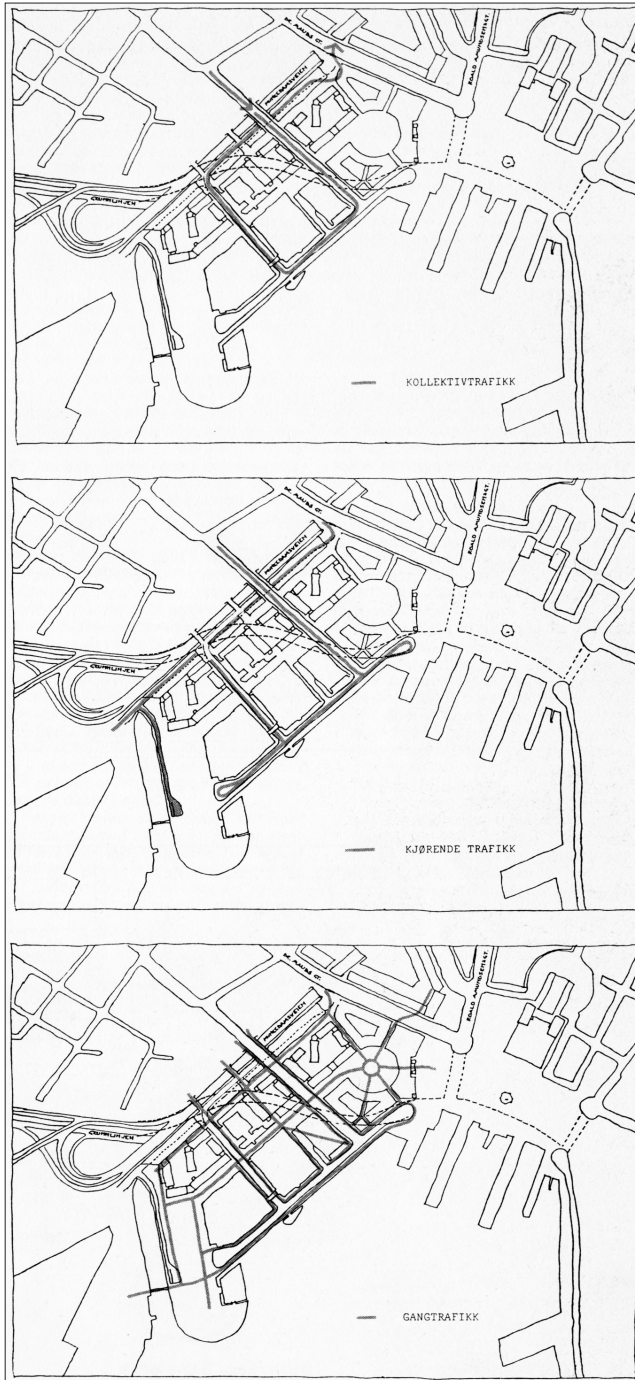
Additionally, despite the fact that Fredrik Torp claims “Watergate’s underlying idea was the quay with boats in front and the buildings behind”,³⁹⁶ I would argue that TTA’s competition proposal rested on the idea of a more traditional (European) urban structure, independent of the suggested quay narrative. Watergate’s situation plan shows that Holmensgate, the street running between the mid row of building blocks; and the circular plaza behind Vestabanen, were the main pedestrian zones. They were intensified with shops, galleries and restaurants. As such, the project’s underlying narrative was articulated through two urban typologies – the street and the plaza. Subsequently, this approach shows the urge to reenact the project’s urbanity through the repertoire of a traditional European city.

As the project entered a new phase after the competition, it would start accentuating the waterfront in a more consequent manner. This reorientation would happen through an intentional treatment of the boardwalk and the quay, as well as through the introduction of a sizeable attraction program such as a 5000-m²-bathhouse. Notwithstanding, the inner street (Holmensgate) would lose on its initial importance while the circular plaza at Vestabanen would completely disappear (as the site belonged to a different owner and its future was unresolved). The project started enhancing the learnings from the US. In the later stages when Niels Torp took over, the waterfront itself would be further strengthened as an open pedestrian space.³⁹⁷

It is clear that as the large-scale re-entered the city in the early 1980s it had to engage with a higher degree of complexity than what had been the case some years earlier. There were also some tendencies in the post-1972 DnC Vaterland project, but it is first in Aker Brygge that a more integrated approach towards the infrastructure was developed. The issue of infrastructure would be conditioned as much by other demands within the project, for the same reason as these demands would be influenced by the infrastructure itself – the solving of the large-scale would become a more dynamic and subsequently strategic endeavor.

³⁹⁶ Interview with Fredrik Torp and Mirza Mujezinović, 26/01/2012, Oslo.

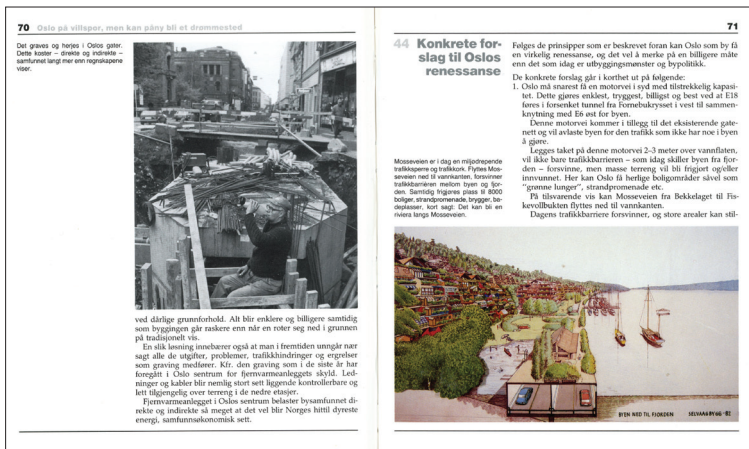
³⁹⁷ As the project was implemented, Tingvallakaia would become purely pedestrian with an exception of being only served by the vehicular service traffic in the morning hours.



146: Infrastructural considerations: top – public transportation; middle – vehicular traffic; bottom – pedestrians, 1983 (Drawing: TTA).



147: *Oslo som drømmested*, Olav Selvaag, 1985 (Facsimile: Cover).



148: *Oslo som drømmested*, Olav Selvaag, 1985 (Facsimile: Pages 70–71).

Struktur/Structure

The following analysis addresses how the issue of *Struktur* evolves as the large-scale becomes implemented through a privately driven mix-use project within the existing city. Aker Brygge, being such a development, was conceptualized as a plan of manageable plots – building blocks – articulated through the imaginary of traditional European city and its *publicness*. Here, I will draw on the dialectic between the project's ground floor plan, its situation plan and suggested architecture, to address the notion of *Struktur* by addressing to what degree such a morphological framework was capable of absorbing changes in program and density.

TTA's Aker Brygge situation plan from the competition showed a city structure of blocks, where each block was assigned one specific program fitting in the work-living-recreation taxonomy,³⁹⁸ presented according to the official color scheme: yellow for housing, blue for commerce and offices, red for public buildings, light violet for small-scale industry, and green with park areas. Additionally, the plan had also included two types of grey representing streets – light grey assigned the pedestrian areas while the dark green assigned the streets with vehicular traffic. As an extra layer in the drawing, the architect overlaid the architecture itself onto the colored areas of each block. The hotel was a terraced structure with a glassed-in atrium, also including a conference hall. The existing workshop building was turned into a uniform multipurpose hall with a bridge connection leading to the hotel. The department store was drawn with a diagonal glassed-in arcade.

The uniform coloring of the blocks in situation plan would create an image of developable envelopes and would divert attention away from the specificity of the suggested architectures – these could be approached as illustrations of the block building's developmental potential. (149) Above all, the situation plan showed the project as a set of different sub-projects independent of each other – these could be developed separately, not being conditioned by each other in terms of usability and performance both during and after the construction period.

Besides the existing workshop hall, three other block buildings facing the fjord utilized the maximum of their envelopes through introduction of glassed-in atriums. Such an architecture opened up possibilities as it could absorb numerous developmental scenarios. By glassing in the courtyard, the interior border of the block building would be blurred, and subsequently it could perform more dynamically. The courtyards could become smaller or bigger,

³⁹⁸ This would be changed later in the rework process. The programmatic mix would be achieved through vertical layering of programs in each of the block buildings.

according to the needed size of the usable floor plates prior to implementation of the project. This would grant openness and elasticity to changing economic matrices prior to implementation and construction of the project itself. In that sense, the block building with its glassed-in courtyard would perform as a flexible generic envelope offering possibility of multiple developmental scenarios.

In this context, I prefer to mention the first large-scale project completed by TTA through which the format of a singular building was potentially reformulated: Oslo Police Headquarters at Grønland, finalized in 1978, ten years after the competition. **(8)** This project touched upon a similar tendency where the glassed-in atrium functioned as a flexible amalgam between different volumes. The headquarters offered an architectural strategy within which the glassed-in space served as a tool to solve the organizational complexity emerging as the size of the building volume increased. Different programs could be placed in adjacent volumes that were subsequently unified by the system of bridges while a glass roof would cover the in-between space.

In the case of Aker Brygge, the potential of block buildings would be made explicit at the public presentation, taking place at the Oslo City Hall in August 1984, long before any official zoning plan was put forward. **(151)** Shortly afterwards, an exhibition was organized as well. **(152)** The presented project was a developed version of the competition proposal, and was influenced by the learnings from the US waterfront projects.

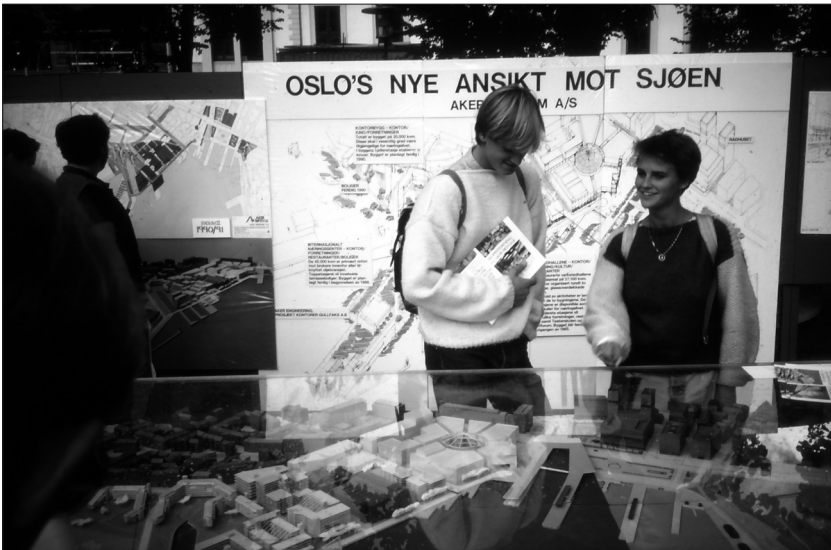
Besides the traditional architectural drawings – the plan, section, façade, axonometric view and the perspective – the presentation also included the immediate plans showing the logic of the gradual development of the area, as well as a specific quantitative coding. **(150, 153)** Each block was overlaid with one specific square meter size showing explicitly the developmental potential – the area tags. At this presentation, the project also got its strategic name of Aker Brygge³⁹⁹ (including a logo). The public interest was immense – ‘overnight’ the value of the project jumped to 250 million NOK.⁴⁰⁰ The

399 Aker would refer both the name of the industrial company Akergruppen and to the historic name of a geographic area and the former municipality of Aker, while Brygge would mean pier (touching upon the maritime culture).

400 It should be noted that the value of industrial property was considered as non-existent as the production hardware was the main value creator. With the emergence of property development, it would subsequently transform its inherent economic value. Interview with Fredrik Torp and Mirza Mujezinović, 26/01/2012, Oslo. In the interview with Kjell Wester, it comes forth that the value of Aker compound was evaluated by industrial property agent to some 35 million NOK, a ridiculously low value in Wester’s opinion, as he was aware of the potential within the emerging property market. A couple years later, a quarter of the compound’s area was sold to DnC where the project was priced to have a property value of one billion NOK. Such an immense value creation gave almost a carte blanche for what could be achieved beyond financial profit. Wester and his team were developers, but they also had an ambition and engagement to create a well-functioning place in Oslo. This period was rather short-lived as the culture of property development evolved while becoming increasingly more profit-driven, something that also caused Kjell Wester and his project team to quit. Interview with Kjell Wester, by Halvor Weider Ellefsen and Mirza Mujezinović, 08/05/2012, Åmål.



151: The project partakers, from left: Kjell Wester (Aker), Sverre Lende (Port Authority Commissioner), Sven Meinich (Plan Commissioner of Oslo), Are Telje (architect TTA) and Hans Svelland (Chairman of the municipal government), 1984. The reworked plan with Aker Brygge logo. (Image: Unknown/photo found in TTA archive).



152: From the exhibition, 1984. (Image: Unknown/photo found in TTA archive).



1 Aker Brygge er et utvalgt område som fremtiden gjennomgår. I 2000, i forbindelse med utbyggingen av E6 og strobler seg fra Rindneskassen til ferdig del av flate så vel som bygginger som 27.250 km², med en total areal av 27.250 km². Ferdig med 1988.

2 Torshavnbyen, Båthavn og fiske- retnings og landene. Totalt 20.000 km. Ferdig med 1988.

3 Verkstedshavn: kontor, hotell og boliger. Totalt 20.000 km. Ferdig med 1988.

4 Internasjonalt offshore- kontor, boliger og kulturhus. Totalt 4.500 km. Ferdig 1988.

5 Kjøpings- kontor, hotell og boliger. Totalt 20.000 km. Ferdig 1988.

6 Barokk- og rekonstruksjons- område. Ferdig 1988.

7 Næringscenter: kontor, hotell og boliger. Totalt 30.000 km. Ferdig 1990.

8 Boliger. Ca. 300 boliger. Ferdig 1990.

9 Maritim Plaza til 300-400 boliger. Ferdig 1990.

10 Foretatt utbygging av næringsby og boliger på Tjuvholmen.

11 Foretatt skandinaviske Tjuvholmen.

12 Nytt leilighets- og næringscenter.

13 Oslo Rindnes.

153: Collage, the project and the city, 1984 (Illustration: TTA).

aforementioned characterization of property development by Ellefsen is applicable here: Production *in* the city would be replaced by production *of* the city.⁴⁰¹ What TTA had implied in the competition proposal drawings, the idea of the developable blocks containing specific programs, would by August 1984 be subsequently translated into an explicit financial narrative: the space production would get a block format where each of the blocks would be tagged with its specific area, explicitly implying economic potentials.

It is clear that the interplay between the ground plan and the zoning plan created a potential, which would help the project be read both as an architecture and as a strategy. Being a Piranesian reality of continuous interiors and exteriors, the ground floor plan showed the totality of the project – how the project would be in the moment of its completion. It illustrated the architectural form of the development – being a translation of urban imaginary where the city and its publicness were embraced. (145)

On the other hand, the situation plan showed the project as an interchangeable and subsequently negotiable reality segmented through the format of programmatically designated (and zoned) plots. (149) One could argue that such an approach would be effective in managing the complexity of the emerging ideals. The public and politicians could embrace motives and narratives of urbanist and architectural matter. The project would be a collection of outdoor and indoor spaces where city life would unfold itself – the suggested plazas, boardwalk, and narrow streets supported by commercial/public programs would undoubtedly be a contribution to the city at large.

The understanding of the project as *Struktur* is evident – the project was framed as a collection of building blocks where the overall layout of the plan could be altered without necessarily altering the project as a totality, its hierarchy of spaces and uses.⁴⁰² Aker Brygge, through the dialectical relationship between the plan and its possible architectures, represented an emerging model with a potential to be used elsewhere. It managed to articulate an operational approach for how the city could re-invent itself within the framework of the emerging neo-liberal regime.

Developmental Possibilities

The following analysis on the developmental possibilities is a continuation of the previous discussion on the notion of *Struktur*. This theme focuses on how the project could be developed in stages due to its size and inherent

401 Karl Otto Ellefsen, "Vernemyndighetenes rolle i forhandlingsplanlegging," lecture at TAB Conference, 16/06/2010.

402 This was also evident later in the process, in the second stage when Fredrik Torp's brother Niels Torp, took over – the project did change, but as a *Struktur*, it maintained its initial idea.

organizational, infrastructural and financial complexities. It aims to shed light on what parameters and how this was protocolled within the plan and the architecture of the project. Here, I will comparatively use TTA's competition proposal and the reworked proposal from August 1984.

As discussed earlier, the competition proposal had incorporated both the former industrial area of Aker Mekaniske and the railway area of Vestbanen. One important factor, which clearly influenced the architects' considerations on the project's capacity to be gradually developed, was the position of the future tunnel Grunnlinjen, substituting the adjacent E18 highway. TTA divided the competition into three main developmental areas: One to the south consisting of former industrial compound Aker Mekaniske; one to the north at Vestbanen; and one in the middle along the future tunnel. The southern segment (Akergruppen's property) could be developed immediately: some of its workshop buildings were to be demolished and some to be reused.⁴⁰³ This was also enhanced with considerations on infrastructure: the vehicular access to the area would be provided from the west at Tjuvholmen – directly off the exit ramp from the existing highway. The pedestrian access would be along the quay – Tingvallakaia and directly to the City Hall plaza, with traffic light regulation across the highway.

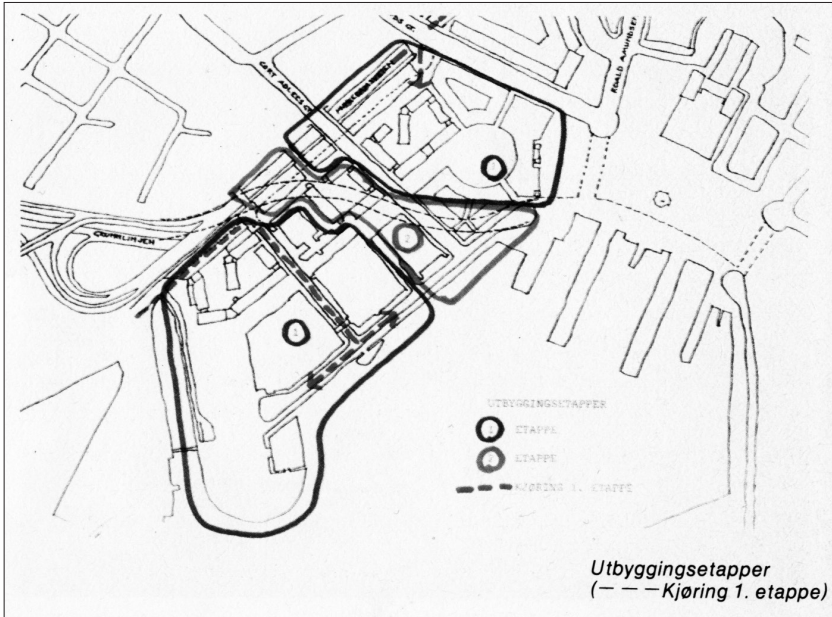
What is visible in the developmental plan from the competition is that its logic was relatively crude. (154) The idea of gradual development was present, yet not substantially articulated to influence the overall architecture of the project. The southern part was a relatively large area with significant developmental potential; still there was no discussion on how it could be developed in stages to optimize the functionality and the architectural/urbanistic performance of the project. Above all, the suggested plan for gradual development was a strategy, which aimed at absorbing complexities of different properties and evolving infrastructural demands.⁴⁰⁴

The reworked proposal from August 1984 would entail a different specificity and approach to the notion of gradual development than what was previously shown in the competition proposal. It related exclusively to the property of Aker: The overall development and its subsequent developmental stages would follow the extent of Aker's property. Within this contained space, the architect in collaboration with the owner and contractor illustrated how each stage would unfold, explicating the amount of developed square meters and the time schedule when each of the stages would be finalized.

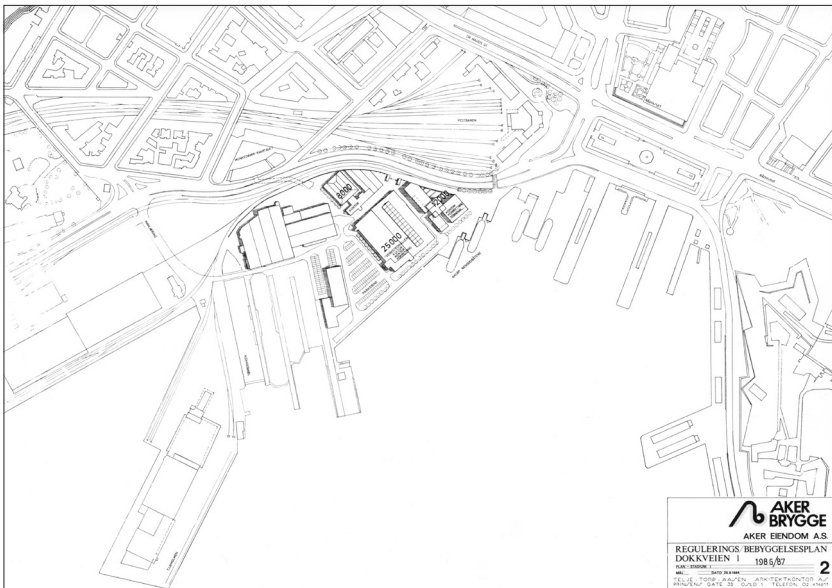
The first stage would take into account mostly existing structures and would be aimed at showing the capacity of these buildings in the context of

403 *Norske arkitektkonkurranser*, 252 (1984): 27.

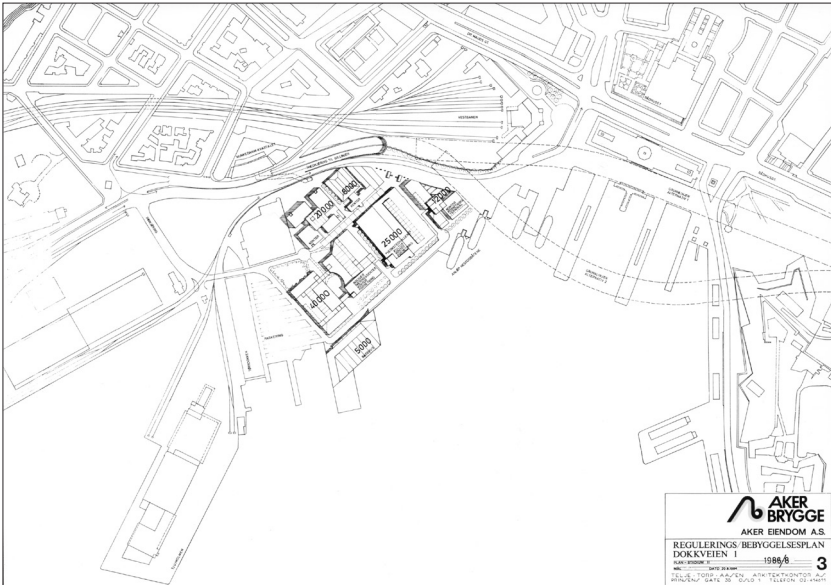
404 Vestbane was owned by the state railroad agency NSB; Aker Mekaniske by Akergruppen, while the E18 tunnel route by the state road agency Vegvesen.



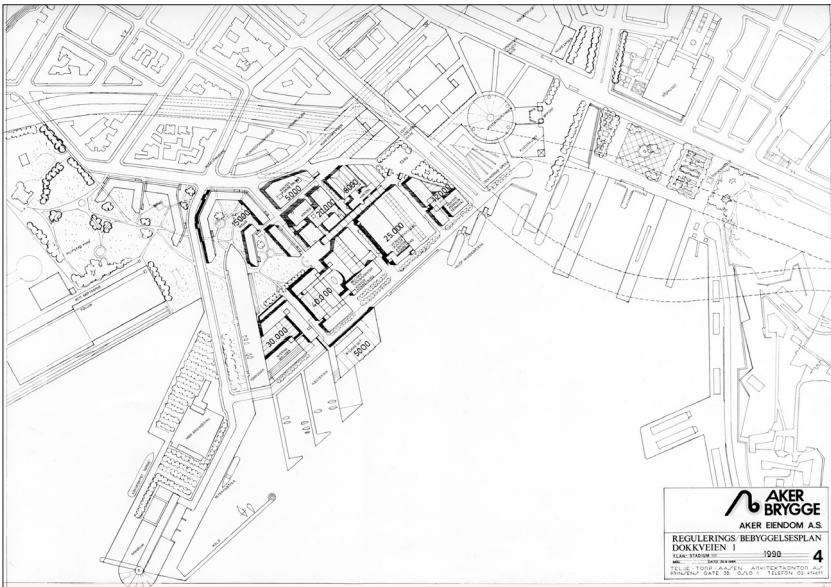
154: Diagram, zoning strategy competition proposal, 1983 (Illustration: TTA).



155: Diagram, zoning strategy reworked proposal – stage 1, 1984 (Illustration: TTA).



156: Diagram, zoning strategy reworked proposal – stage 2, 1984 (Illustration: TTA).



157: Diagram, zoning strategy reworked proposal – stage 3, 1984 (Illustration: TTA).

reuse, as implied with area tags the existing Verkstedhallen and the office building behind it would have an area of 25,000 m² and 8,000 m² respectively. (155) The architect had also suggested a new building having 12,000 m² at the eastern corner facing Vestbanen. Its program would be office, shopping and ferry terminal for the inter-communal ferries (this building would be later called Terminalbygget). The leftover of the site facing the fjord would be turned in parking areas for the future visitors with the access road from Filipstad. The other two existing buildings along the dry dock would remain unchanged. A temporary pedestrian bridge would cross E18 motorway. This first stage was expected to be finalized by 1986/87.

The second stage was to be constructed simultaneously with the construction of E18's highway tunnel Grunnlinjen under the City Hall Plaza.⁴⁰⁵ (156) The two unused buildings kept on the western side of the site would now be demolished and three new buildings would be built during the second stage: one having 40,000 m² of mixed use, one of 20,000 m² of offices and one of 5,000 m² bathhouse. The parking area would be pushed westward: three of the dry docks would be filled with earth, making it possible to offer parking space.

In the third stage, Aker Brygge was expected to be completed. (157) The small boat marina and the new building containing 30,000 m² of commercial and residential space would be erected. The remaining area to the north would be developed as a little urban park along with a housing slab with 1,000 m² and an office building of 5,000 m² facing Munkedamsveien.

The analysis of the developmental potential has given three important results. Firstly, what is clearly visible is that the development of the project is shown with the development of the main city infrastructure, such as construction of the highway tunnel: the development of the project would need to be compatible with the development of the adjacent infrastructure. The traversing highway was seen as something important for the economy of the project, but its presence within the context was to be articulated: it would make the project accessible from the regional infrastructural network, but accessibility by car was not to deter the pedestrian accessibility. Special care was given to facilitate the user – the visitors to the new project: either those coming by foot from the existing city (refer to the pedestrian crossings, promenade) or by car (refer to the placement of the parking lots in different stages and easy access from the highway).

Secondly, the development of the surrounding city was a part of the overall developmental strategy of the project itself. It should be noted that the drawing of the last stage also showed fully developed areas of Vestbanen and fully

⁴⁰⁵ The completion of the second stage and the construction of the tunnel were to coincide – this was perhaps too optimistic because this infrastructural project would demand a much longer construction period as the tunnel was to be submerged more than 40 meters under the plaza datum. The tunnel was opened in 1990.

developed Tjuvholmen with an aquarium on the very tip facing the fjord. This would portray future Aker Brygge as a transition zone from the city to the outermost point in the fjord, being a kind of Watergate. As such, the project's development was seen as an intervention on the city scale.

Thirdly, the sensibility to the economic potential of the project was to be optimized also within the developmental plan both in terms of the new and the old reused buildings. Three stages show that the project's potential to effectively function was continually preserved – each stage had its own logic that made the newly completed or reused buildings be fully operational despite the fact that other parts of the project were still in the process of construction. One could argue that the will to reuse existing industrial buildings was also economically driven, and not only driven by the romantic narratives of industrial imaginary. By reusing permanently (as in the case of Verkstedshallen) or temporarily (as in the case of the old workshop buildings that were kept in the first stage and demolished in the subsequent stages), one could maintain a continuous flow of capital: available existing buildings could be rented immediately, hence keeping the economic rationale. This was totally opposite from the case of Vaterland, where all existing buildings on the site were demolished during the rezoning process despite the fact that the project was to be developed many years later.

Aker Brygge's drawings from the 1984 reworked proposal illustrate emerging sensibility towards the articulation and implementation of the large-scale. Above all, these drawings show the architect's intention to constructively and pragmatically deal with the complexity of issues caused by the sheer size of the project. The notion of the gradual development would undoubtedly be essential in how the project is conceptualized: it had to show the project's elastic capacity to absorb changing economic and political conditions, while maintaining its performance as a part of the larger urban context.

S U M M A R I Z I N G R E M A R K S

In this chapter, I have explored TTA's competition project and the reworked proposal for the transformation of the former industrial compound at Aker Mekaniske. In its introductory part, I reviewed the socio-political and cultural context in Norway and Oslo at the beginning of the 1980s. Through the six thematic reviews, I have examined translation of ideas, ideals and imaginaries unfolding at different levels of TTA's project. Here, I analyzed and dissected the architect's intentions and how these intentions were turned into the material reality of the project. In the following summarizing remarks, I will

reflect on the conducted analysis by touching upon the capacity of the chosen perspectives: what has been unveiled through them and what not.

My chosen perspectives have managed to unveil two main tendencies that may characterize the nature of the large-scale at the beginning of the 1980s as appearing in Telje-Torp-Asen's Aker Brygge. Firstly, this project illustrates how the notion of realism would become an important component in the conceptualization of the large-scale. What was meant with realism was that the choice of applied architectural and urbanistic solutions was to be based on simple and comprehensible, yet visionary, solutions, which were potentially 'guaranteed' to function. One could argue that the visionary narrative revolved about medial and conceptual clarity of the idea itself: a development had to project a well-defined imaginary as for example that of a small-scale seaside town visible in the winning proposal 'Fint Snitt' and that of a traditional dense city shown in TTA's 'Watergate'.

One of the essential aspects within this urge for realism was also its encounter with economic matters. The notion for gradual development would become a stress test for how realistic the project was, as it was impossible to develop a large-scale project in one stage. As such, this particular notion would affect how the project is formulated volumetrically, programmatically and infrastructurally. The large-scale would become fragmented into several interdependent volumes whose implementation would follow a well-planned financing and procedural framework. Secondly, the notion of the existing context would function as an instrument informing the articulation of the large-scale. It would affect the volumetric framework of the project, either in that the adjacent streets would be prolonged into a project, or that the neighboring/existing buildings would function as structuring elements for a new development. In the case of Aker Brygge, the continuation of Cort Adlers gate into the project was a way to create the main infrastructural access, while the reuse of Verkstedshallen functioned as a tool for the latter.

What my research perspectives have not unveiled was the notion of future: how Aker Brygge was developed after TTA were discharged from the position as the architect in charge. I have slightly touched up Niels Torp's take-over and his subsequent alteration of the plan for the development. I would argue that these changes were in the spirit of the original TTA plan. Still, a more thorough review with the help of the same thematic framework could have further unveiled the elasticity of the original project. In addition, it could have revealed to what degree the understanding of the large-scale transform in the late 1980s as the neo-liberal era had already solidified its grip on the Norwegian society, both in terms of the planning procedures (governance) and in terms of professionalization of property development.

The reason why I have not concentrated on Niels Torp's Aker Brygge project has to do with my overarching intention to maintain the research focus on the transitional period late 1960s – early 1980s during which, according to my hypothesis, a more comprehensible understanding of the large-scale architecture developed. Within such an approach, TTA's project is an example of an urbanistic sensibility that was about to become a model. I would, however, argue that Niels Torp's project could be seen in relation to that particular model and its inherent logic. How much it actually influenced it remains an open question for further discussions beyond this research.⁴⁰⁶

Finally, Aker Brygge was a product of an idea competition, which did not estimate in its description, size and programmatic content of the future development. Participating architects were to suggest their visions for how the former shipyard was to be transformed. I would also argue that as Telje-Torp-Aasen had witnessed, the stratagems of erasure and redevelopment as explicated through the projects for Karl Johan Quarters, Vika and Vaterland where “the local architects were used to make fast and huge projects in the city”,⁴⁰⁷ they tried to find through Aker Brygge operative ways to be visionary again. They did not deny the possibility of a large-scale urban development and the emerging property development mechanisms.⁴⁰⁸ Rather they engaged both, and as such, the project itself resonates with the incipient neo-liberal context. TTA's project was influenced by both American and European references, but the actual translation and articulation of these ideas, resulted in a highly local project that managed to interpret persuasively both the scale of the city and the developmental potential of the site.

406 The invited competition for this project happened in the autumn of 1986 while the completion of its first second stage was in 1989. In my opinion, Niels Torp's Aker Brygge and SAS Headquarters at Solna (competition 1984, completion 1987 respectively) could be related to the subject of my research, as they clearly follow and enhance the logic of the large-scale architecture. For more information, refer to Mirza Mujezinović, “Gjengangere på gjengrodde stier,” lecture at “Arkitekturrikets tilstand” Conference, (Oslo: Norsk Form, 07/09/2011), http://www.slideshare.net/Norsk_Form/mirza-lecture-norskform07092011ver2

407 Fredrik Torp, “Bydel og bystruktur, boliger og brostensball,” *St. Hallvard* 4 (1979): 233.

408 Fredrik Torp's afterthought is interesting as he puts architecture production within the context of value creation and property development: “In the aftermath, I thought that if we had said to Wester that we wanted 1% of the total value creation that the project generated as our remuneration, we would have become millionaires. The market value of the project increased by 750 million kroner during the design process. What we do as architects is very important because we work with pure generation and creation of value. Before this project, we were never involved with something similar. We were paid on hourly basis for some 300 kroner per hour, if I remember correctly. Since then architects have learned that they are a part of the value creation chain. What we do as architects is very important and it demands responsibility. One should not be carried away. One should be down on earth. The city should be respected. The developers may get their shear of value creation, but an architect should take care that this value creation happens within the reasonable limits. That was our approach when we ran the office.” Interview with Fredrik Torp and Mirza Mujezinović, 26/01/2012, Oslo.

6. Notes on the Empiric Material

In this research, I have come across a considerable amount of empirical material, from drawings, illustrations, textual descriptions, articles, to municipal documents. In addition, I have also conducted several interviews with important partakers: architects, public officials and clients. In the following chapter, I will give closing remarks on the challenges that such a rich and varied material has yielded. Potential similarities and differences within the material relating to the three chosen cases are at the very focus. This may give additional insights about the translation of ideas – the interaction between unfolding architectural discourses and the development processes within the selected projects.

Dragvoll

The main empirical source in the case of Dragvoll is a project book published right after the second stage of the competition in 1972. It contains illustrative material and textual explanations including those by the jury. The reason why I have chosen to use it as a structuring device within the overall empiric landscape is due to its extensive and convincing character. In addition, it is an impressive piece of graphic work. The book starts with overarching conceptual discussions on the idea of university, followed up by more traditional discussions on the totality of the project, and ends with a zoom-in into the first stage of the development.

Paradoxically enough, one of the constraints that I encountered when reviewing the book has been its extremely consequent argument. I would argue that the project lived its own life within the book, as the main and the only protagonist. The architect's persona was almost non-existent; it was intricately weaved into the story of the project. Perhaps it has to do with the fact that the project was a product of teamwork. On one side, the book reminds me of Barthes' "The Eiffel Tower". On the other side, it functions as a manual for how *to read* the project, similar to the aforementioned manual for how *to use* Skjetten Town Project.

By having available such an extensive presentation of the project, it became challenging to create a substantially discursive argument, as the project's own

argument was already effective and ‘waterproof’. In order to come behind the project material, I have conducted several interviews with an aim to open up the discussion matter. My intention has also been to acquire more information on the socio-cultural context within which the project was conceived.

The interviewed architects, having different roles and the order of appearance in the project, offered complementing perspectives. Some discussed more the overarching conceptual framework as understood through the architecture culture of the period (Henning Larsen/Troels Troelsen), while the others dealt more on the implementation of the project and its aftermath (Per Knutsen).⁴⁰⁹

The interview with Knud Larsen extensively covered both perspectives, as he was one of the central architects present in all project stages from 1968 to 1978. The first interview was with Knud Larsen in 2009, the second one with Henning Larsen and Troels Troelsen in 2010, and the third one with Per Knutsen in 2011. It should be noted that the framework of the interviews was open, being directed at gathering as much info as possible. Yet, the interview with Henning Larsen and Troels Troelsen was slightly more structured, focused on some specific topics, for example the relationship between Larsen’s practice and the Academy, and translation of structuralist and contemporary influences.

When triangulating the findings from the interviews, there are no substantial contradictions. Yet, on one particular instance the interviews did differ. Knud Larsen⁴¹⁰ offered valuable insights, but he often used the noun “I” when explaining certain design decisions. On the other hand, Troels Troelsen talked more in terms of “we” and “Henning”.⁴¹¹ The reason might be that Troelsen’s relation to the project was established when the project was a part of a more vibrant teamwork environment in Copenhagen and during the initial years in Trondheim. As the implementation process unfolded into the mid-1970s and the late 1970s, the environment at the Trondheim office would change with establishment of more formal roles, for example Per Knutsen’s becoming the project manager. I would argue that Knud Larsen would remain the design mind at the office in Trondheim. That may also explain, along with the fact that he dedicated ten years of his life to working on this project, his highly personal (and emotional) tone when talking about Dragvoll.

An additional interesting remark relating to the interviews is the informer’s approach to the outside context. In general, during all three interviews, one may hear about difficulties that the architect’s project team faced when

409 Here, I should also mention architect Hanne Wilhjelm. She was not interviewed, but her valuable input comes through the comments that she made in the reader session, received on October 2, 2015. As these came in the final stage of the research, Wilhjelm’s comments have helped me clarify the general overview of the design process. I have also interviewed Knut Eirik Dahl, but his input relates more on the architectural context of Trondheim in the late 1960s. As such, it is secondary in the discussion of Henning Larsen’s project at Dragvoll.

410 As mentioned earlier, Knud Larsen worked from the introductory competition phase in 1968 to the implementation of the first phase in 1978.

411 In the interview with Henning Larsen and Troels Troelsen, it was Troelsen who led the conversation. Henning Larsen was mostly quiet, but came with some few energetic inputs.

encountering SBED and the fire department officials. Yet, the informers vividly recall certain individuals within these institutions managing to tip the project in the architect's favor during the implementation process. Troels Troelsen talks warmly about SBED's architect-in-charge Dag Brønne, while Per Knutsen mentions Kai Nilsen from the local fire department. I would argue that despite highly bureaucratic procedures and political governing, there was also a degree of decisiveness and open-mindedness in these state institutions. Such a condition would undoubtedly help translate the idea of glassed-in streets into a buildable reality.

Two additional interviews with Kjell Spigseth and Knut Eirik Dahl revolved around the local context. On one side, Kjell Spigseth, an architect with experience and knowledge of the 1960s Trondheim and an outsider to the project, helped me understand better the planning situation in Trondheim, among other things how and why the university ended up at Dragvoll. His input was a complement to the official version appearing in the municipal documents. On the other side, Knut Eirik Dahl offered insight into the late 1960s atmosphere at the school of architecture in Trondheim. As such, they have provided me with an understanding of time and place. Both interviews project a notion of change affecting the practice of planning, and underlying ideas for architecture production.

By relating the input from the three main interviews to the project book, I have managed to build up an extensive understanding of the project, from the overarching level that relates to the realm of ideas, to the site-specific pragmatic issues, for example the issue of parking and fire safety. By treating these different topological layers, I have come closer to deciphering the process of translation of ideas. The analysis has unveiled two complementary conditions. On one side, it has shown that the making of large-scale architecture as explicated in the case of Larsen's university project was *strongly* influenced by the architectural structuralist discourse of the period. On the other side, it has shown that the way the assignment was approached and solved by the architects was very much in accordance with the late 1960s socio-cultural and political zeitgeist.

I would argue that architecture culture's field of ideas as condensed within the structuralist realm provided an operational framework that played in accordance with the expectations of the present-day society. For example, this was visible in terms of the belief in communication technology, the unfolding democratization and modernization narratives relating to mass-education, and the state project to strengthen the Norwegian building industry and its mass-production capacity. As such, the project's overarching idea of low-rise high-density structure of blocks and glassed-in streets was operative enough in terms

of its implementation potential to absorb the reality of the building assignment. In addition, due to its openness it was easily transformable to encounter the impact of modifying factors without eventually compromising the project's overarching narrative.

Vaterland

The gathering of empiric material in the case of Vaterland has been much more demanding than in the Dragvoll case. I have encountered a considerable amount of written material relating to the socio-political and cultural conditions surrounding the project. On one side, there were municipal transcripts showing the procedural processes and correspondence documents between the architect, the client, the municipality and other instances; and on the other, the secondary sources commenting on the project, such as Francis Sejersted's article "Hvem kan redde city? Vaterlandprosjektet 1954–1979" and Helge Ramstad's article "Vaterland – 15 års arbeid for hva?" These have offered excellent insight into the background and the chronology of the processes surrounding the project, but they have not offered substantial information about the architecture of the project itself.

In general, illustration sources showing the project and its architecture have been sparse. I have found some few drawings in the municipal archives together with rezoning documents. I was told at Oslo Municipality's Planning Department (PBE) that much of the material has been lost when the planning department moved to the new address in the early 2000s. Still, I have been fortunate to obtain five A4-booklets illustrating the project and its different iterations. These came from F.S. Platou's son, architect Jon Platou (whom I also have interviewed). The booklets consist of drawings, illustrations and model photos offering an excellent empirical insight into the project. By initially reviewing this documentation, I came to an assumption that this project was much more interesting and differentiated than what usually has been portrayed within the mainstream critique as appearing in the writings of Jan Carlsen and Peter Butenschøn.⁴¹²

The available empiric material received additional depth after I conducted two interviews: with Jon Platou and Jan Georg Digerud. The former was done in 2011 and had an open structure where I aimed at obtaining as much background information as possible. Prior to this interview, I was well aware of the project chronology. Jon Platou's input offered additional insights about F.S. Platou, and the context surrounding the project. It was, nevertheless, relatively limited in terms of architectural discussions.

The interview with Jan Georg Digerud would revolve exclusively around

⁴¹² Peter Butenschøn was also interviewed in 2011. The input from this conversation was rather limited.

the architecture of the project (more specifically its 1960s iterations for which he was the managing architect). It was conducted in 2015, relatively late in the research process. At the time, I was well aware of the project, as I had already ‘forensically’ studied the available drawing material. It should be noted that I have found appreciation in reading the plans and sections, but I felt that something was missing in my understanding. The drawing material showed a remarkable professional ability by the responsible architects.⁴¹³ I would argue that these drawings did not seduce me to the degree that I lost researcher’s critical distance to the project. Rather, my appreciation emerged because of the genuine quality of the drawing material, something that is independent of whether one likes the project or not.

Subsequently, I encountered architect Jan Georg Digerud, where our conversation mostly revolved around underlying ideas and influences on one side, and their translations within the architecture of the project on the other. An impending problem with Digerud as an informer is the way he talked about the project. Digerud may sound outspoken and theatrical, something that could be potentially explained through the character of his persona and his architectural upbringing from the US. Within such a context, his input may be seen as a series of post-rationalization from 2015. On the contrary, I would argue that Digerud’s input was genuine (and as such was important). His reflective insights and the ability to talk eloquently about underlying ideas and influences show his closeness and affection to the project, as well as that he believed in the suggested design solutions.

The mentioned American influences have undoubtedly been central in the making of the project. I would also add that being a practicing architect in addition to an academic researcher has helped me in differentiating an architect’s projective yet personal thinking from random post legitimations. Through the conversation with Jan Georg Digerud, I was able to establish the missing link between the illustrative material, its textual explanations and the realm of underlying ideas. In this way, I have managed to get a more dynamic perspective on how the translation of ideas unfolded within the making of the project.

What has not been unveiled was the contribution by the whole project team of ‘non-architectural’ consultants, for example structural, fire and traffic engineers. The available empiric material was rather sparse on these matters, for example in the available official documents there have been only two names mentioned, A/S Vaterland/DnC (the client) and F.S. Platou (the architect). Here, one should keep in mind that under the umbrella of F.S. Platou’s architectural corporation

413 A list of credits showing the involved collaborators in Vaterland project is not available. The project is credited exclusively to F.S. Platou. I have found Digerud’s name in the text boxes embedded in the drawings of the 1960s iteration. Successively, I followed this thread.

there was a consulting ‘sister’ firm, Norconsult. The only contribution that I have touched upon was the one suggested by the Danish consultants from “Institut for Center-planlægning”. By potentially including the whole project team, I would have additionally expanded the notion of modifying factors and subsequently challenged the position of the architect because some of the ideas and their translations could potentially be assigned more to the project team of consultants than to the architect himself. The reason for not including this particular issue is that I have chosen to focus on the main architectural and urbanistic discussions as formulated by the architect.

Finally, I would argue that the available empiric material shows a disproportionate relation between the amount of available *written* sources by others than the architect himself, and the sparse amount of *visual* and *textual* material by the architect circulating in the public realm. This may also potentially reflect the general view that the making of this project was a highly problematic matter. The critique of the project overshadowed the project itself. Subsequently, my research on Platou’s DnC project is not a revisionist attempt to rewrite the history of how Oslo encountered its modernization project in the 1960s and 1970s. Nor it is an attempt to say that this project was a good or bad project. Rather it is an attempt to discuss it within a broader context where this project is just one in a series of many through which the Norwegian large-scale (urban) architecture has matured through.

Aker Brygge

As in the previous two cases, the primary empiric material for Aker Brygge discussions is a mixture of the architect’s drawings, illustrations, and textual descriptions on one side, and a series of interviews on the other. Interestingly, in the case of Aker Brygge, there was not *one* publication by TTA where the project is comprehensively explained, as for example in the case of Larsen’s book and Platou’s A4 project booklets. The original competition material is not available; rather there is its extensive reproduction in the Norwegian association’s magazine *Norske arkitektkonkurranser* [Norwegian Competitions] and Oslo Byes Vel’s *St. Halvard* magazine. I have been fortunate enough to enter the archives of LMR Arkitektur AS (the 2007 continuation of Telje-Torp-Aasen’s architecture practice) where I found rich illustration material randomly archived, among others also 1984 rework of the project. Yet, no textual descriptions were found.

My first interview was with architect Fredrik Torp, conducted in early 2012. By having obtained a considerable amount of illustration material, along with this interview, I concluded that the architect’s input was already substantial,

as my understanding of the project was established. I did not find it necessary to interview other involved architects than Torp, as there were no potential controversies relating to architectural discussions. Rather, it became clear that additional layers of information would emerge in the encounter with other partakers as their presence within and around the project turned out to be both interesting and essential for my research. This was also inspired by the magazine *St. Halvard* where these different partakers were presented along with their view of the competition and the winning proposals.

It should be noted that Fredrik Torp was highly eloquent about the project, for example in terms of suggested organizational concept, underlying references as well as in terms of the background that TTA had in working *with* and *in* the city. What noticeably came forth was the relationship to Aker's representative Kjell Wester. Torp phlegmatically explained the dialectics of this collaboration, where it was clear that Wester, as a client representative, was a driving force with an aim. Still, the interview shows also that the collaboration was dense, contribution mutual and the architects had maintained their position and professional integrity.⁴¹⁴

After Torp, I interviewed Kjell Wester. Interestingly, the conversation took place in his little five-square-meter office rented at the city hall of a small provincial town in Sweden, Åmål, where he, as a private investor was doing waterfront projects inspired by Aker Brygge. His input clearly complemented Torp's. He openly talked both about Aker Company, his own engineering background and experience, TTA and finally about ideas and influences relating to the project itself.

The common thread in these two interviews was that both informers portrayed the context as a time of change and new ways of doing urban projects. As well, there was a sense of commitment and belief that both the architect and the developer were doing something right and good not only for their particular sector, but also for a general Oslo public. Within this context, the aforementioned exclamation by Torp should be repeated: "It [Aker Brygge] had to be as dense as cod row!"⁴¹⁵

The series consists of two additional interviews with jury members Sigurd Østberg (he was also the competition organizer from Oslo Byes Vel) and Sven W. Meinich – the former Planning Commissioner of Oslo. The interview with Østberg focused on obtaining information on the competition background:

414 Fredrik Torp says that "when we started [competition] there was nobody from the outside saying what we should do. We programmed the project as if this was a student assignment and did what we wanted. We got the commission to develop this project, but the development was to happen with input from the client, what he wanted. Ideas came along in the process. That was ok. We had no problems with going into a collaboration with a client and making a project adapted to his wishes." Interview with Fredrik Torp and Mirza Mujezinović. 26/01/2012, Oslo.

415 One additional episode from the interviews should be mentioned. The client's representative, Kjell Wester, described by Østberg as a difficult executive, proudly showed in the interview the photos of him and his family when they worked on a hot dog stand at one of the weekend happening at Aker Brygge. The aim of such events was to invite a broader Oslo public, and to show the new emerging urban attraction at the fjord.

what had led to the competition itself. Here, Østberg was clear and precise, unlike in his discussions on the competition projects (and later proceedings) where he was colored by his un-nuanced favoring of small-scale.

The interview with Meinich was the last interview I conducted: it was done in the late spring of 2015. At the time, I had already accumulated enough knowledge of and around the project so the interview aimed at shedding light on the planning conditions in Oslo in the early 1980s and more importantly on the competition's evaluation process. Meinich's interview showed that the context prior to, during and after competition could be characterized as a period of strategic positioning and tactic maneuvers. There were different agendas, which sometimes intertwined and played in accordance, while sometimes there were direct confrontations. The choice of the runner-up project as a basis for the future development was definitely one. My intention was also to conduct an interview with Niels Torp, the architect who would take over the project in the second stage. Unfortunately, this was not so easy.⁴¹⁶

The illustration material has shown the project in terms of its physical and programmatic characteristics, the project "as it is". On the other side, the interviews offered a dynamic perspective by placing the project within both the framework of architecture culture and the managerial context of implementation. Through these interviews, I have managed to unveil the underlying ideas and references, and how these were translated. What became apparent was that this process had been multifaceted and two-directional. I would argue that the role of the developer was highly distinctive. Kjell Wester participated proactively in the process. He wanted the project to happen and demanded full engagement from the project team.⁴¹⁷ Finally, the empiric material and the interviews show the success of Aker Brygge as a large-scale architecture that eventually also became implemented, resting on its capacity to enhance complexity and intertwining of different roles and interests.

Closing discussion

The review of empiric material has unveiled that the architect's position within the making of large-scale architecture in the period late 1960s early 1980s was

416 After several months of trying, even with a recommendation, I did not manage to arrange a meeting with Niels Torp. Subsequently, I gave up.

417 Fredrik Torp's description of the initial design phase illustrates the nature and the dynamics of collaboration: "Wester took us to America together with the contractor. We saw different things. We made sketches and plans as well as we had exciting seminars every evening. We figured out what we should do. Wester said: 'Now I call the city mayor of Oslo, to arrange a press conference and you guys present the project. It is urgent.' I said that we needed at least the whole summer to work with the project, and the meeting should be sometimes in the fall. The meeting with Albert Nordengen was scheduled, and it was on the 15th of August!" Similar eagerness by Wester continues also later in the process: "It was the first time that the architects were present and 'sold' the project on Karl Johan street [Oslo's main street] during the Oslo-day Festival. Wester wanted us there and we had to show up and answer questions from the public. It was a new situation on all levels. It was very exciting and we earned a lot. Aker Brygge was a quantum jump." Interview with Fredrik Torp and Mirza Mujezinović, 26/01/2012, Oslo.

in transformation. It shows that the translation of ideas, ideals and imaginaries was intrinsically bound to architecture culture. These were operative in solving new building assignments triggered by the overarching societal developments. The process of translation was a highly intricate dialectic game with architects as one of its main players. They were present, through their knowledge domain, both in terms of architecture discipline, and profession, and as such, they were responsible for imagining this particular type of architecture. Yet, the complementing empiric material, coming from the archive research and interviews, shows that there is an emerging complexity in terms of the partaker's engagements.

Larsen's project may be read as a direct reflection of the imaginaries from a structuralist realm, but what the available empiric material has unveiled was that these imaginaries were also operative, flexible and open to be translated into the physical reality of the project without any substantial controversies. There was a coherent relation between imaginaries suggested by the architect and the project reality administrated by the client. Among others, the client's intention of mass prefabrication was directly fulfilled through the structuralist approach. The architect was *the* provider of ideas: The architectural idea was central and the architect's endeavor was to make it real. Notwithstanding, the client played a relatively static role in the development of the project, being more of a receiver and an administrator.

In the case of Vaterland, the client's overarching economic, political and social intentions had created a loose framework within which the architect was to navigate. Here, the architect's mandate was clear: it was space production practice. The architect's suggested imaginary of *one* continuous large-scale volume was operative enough to encounter the constraints of urbanization forces and the client's intentions for a *modern* urban arena. Still, it was incapable of projecting an image that would suffice the public/political opinion, and the architect had to adjust continually the project. I would argue that the outside context (that of public opinion), would be increasingly more important as the democratization and *politization* of space production practice was gaining momentum, something that would make a process of translation of ideas also more complex.

The empirical material in the Aker Brygge project unveils the underlying narrative for the project and its architectural/urbanistic translation. The architect embraced a clear urban attitude in its competition proposal, something that would later be picked up and fully engaged by the client. On the other side, the client's representative, Kjell Wester, came from building industry (shipbuilding) and had already an organizational and technological expertise. Within such an understanding, the Aker Brygge project would

enhance a different type of professionalism than what was visible in the other two study cases where the client had expanded its administrative role. I would argue that this had resulted in a collaboration where the client participated more proactively in the making of the project. He was an inherent part of the project team, and not just an outsider with demands and a checkbook.

In the period late 1960s and early 1980s, the modes of the engagement between the architect and other partakers (for example, the client) would become more complex, being mutually intertwined and increasingly interdependent. Among other things, this would also result in a more pragmatic approach by the architect when solving the large-scale. The architect's ability to deliver something that may be realized would define the project's level of success. The operability and quality of an idea would be measured equally in terms of its structural/programmatic capacity, as well as in terms of its ability to be translated and implemented. Similarly, the client's and public opinion would become more emancipated: they would be able to appropriate architectural and urbanistic references and imaginaries as part of their own jargon and a way of thinking.

7. Conclusion

*If exchange is the criterion of generality, theft and gift are those of repetition.*⁴¹⁸

This research has examined large-scale architecture developed during the period late 1960s to early 1980s in Norway. It has also shed light on the contemporary architecture culture of the period, its prevailing and emerging ideas, ideals and imaginaries. Within the course of this exploration, the notion of translation has functioned as an instigator of large-scale architecture. I have examined how the architects' intentions (ideas, ideals and imaginaries) were taken over into the material reality of the large-scale projects. In addition, a review of the contemporary society has created a framework within which the large-scale architecture has been contextualized in terms of underlying building assignments and potential modifying factors. Two main questions have charted this research:

Which underlying imaginaries informed conceptualization of the large-scale and to what degree these imaginaries reflected the renewed interest for the (existing) city, a tendency developing at the time?

To what degree a specific type of architectural and urbanistic sensibility emerges due to the new (large-scale) building assignments in the period the late 1960s to early 1980s?

In the following chapter, I will make concluding remarks relating to these questions while expanding the discussion to embrace also the question of potential knowledge sediments relating to large-scale architecture in Norway:

To what degree the continuous dialectic of translation as explicated through a series of large-scale intervention, has implied something new – another type of ideals and formal models operative enough to encounter the contemporary city and its inherent architecture?

418 Gilles Deleuze, *Difference and Repetition* (New York: Columbia University Press, 1994), 1.

Based on the analysis of the empiric material and the chosen research perspectives, I have identified four potential theoretical readings that eventually relate to the above-mentioned research questions:

- (1) *Large-scale architecture is inherent to the critique of modernism: the large-scale draws on the analogy of the city.*
- (2) *Large-scale architecture is re-invented through its encounter with the context: the large-scale is local.*
- (3) *Large-scale architecture is inseparable from urban/public space: the large-scale draws on the articulation of pedestrian realm.*
- (4) *Large-scale architecture revolves around articulating developmental openness: four-dimensional formal strategy replaces three-dimensional form.*

These should not be read as deterministic statements, but as projective ones: they draw a silhouette of a sensibility that emerged during the period late 1960s to early 1980s. The research has shown that this sensibility was bound to its context, not only in terms of physical and programmatic constraints within the surroundings, but also in terms of sociopolitical, cultural and economic conditions. I would argue that the large-scale architecture would become ‘vernacularized’.⁴¹⁹

This speculation on ‘vernacularization’ is about dialectic of translation where ideas, ideals and imaginaries are imported, consciously or not, and subsequently ‘pounded’ by the reality of the local context. Politics, economic parameters, building industry with its particular ways of constructing and public opinions had influenced the underlying large-scale stratagems and made them local. Subsequently, these stratagems were transferred from the absoluteness of the architecture culture to the relativeness of their specific project geography. Through this process, the large-scale architecture also distanced itself from its ancestry, megastructure. Instead of being based on ideas which “tended to be either a product of absolute power from the past or a by-product of some techno-utopia future”,⁴²⁰ the large-scale ‘vernacular’ drew on immediate realism of returning to the city, and subsequent fragmentation of power.

419 Vernacular comes from *vernaculus* relating to plain-folk native. It may also mean ‘home’ grown (from *verna*, for a slave born in his master’s house). In Masheck view, the architectural analogue should be *anything but classical*. Nonetheless, the vernacular does not relate either to a primitive condition. Seen from the perspective of art, vernacular relates to something passed on, unschooled and maintained by an unwritten tradition of workshop practice. Joseph Masheck, *Adolf Loos The Art of Architecture* (London: I.B. Tauris, 2013), 35–36.

420 Fumihiko Maki, in interview with Rem Koolhaas and Hans Ulrich Obrist, *Project Japan: Metabolism Talks* (Köln: Taschen, 2011), 313.

Critique of Modernism

This research has shown that it is difficult to separate the large-scale architecture from the unfolding tendencies within architecture culture of the period both as approached from the international and the local perspective. The unfolding critique of modernism could be read through two prevailing tendencies: on one side the notion of modernist dissolved space as explicated through the idea of freestanding object was being replaced firstly by the structuralist notion of system and secondly by the rationalist notion of continuous space. On the other, the modernist strategy of separating functions would be replaced by the integrative approach. These underlying ideas, ideals and imaginaries used by architects could be seen as disciplinary imports into the realm of profession.

The research shows that the large-scale architecture was affected by these transitions, translated through the analogy of the city. As discussed in Henning Larsen's project, this would be explicitly suggested through the system of city blocks and glassed-in streets simulating a traditional urban texture. In F.S. Platou's project, the city analogy was not as structurally explicit, but it could be read through the project's mixing of functions and staging of continuous yet differentiated interior spaces. In TTA's project, the city analogy appeared through the implementation of traditional urban repertoire of streets, plazas and a multi-programmed city district. I would argue that in the first two projects the city analogy appeared on the project's interior side, being potentially independent of outside conditions. In the third project, the analogy of the city would 'exit' the interior; it would manifest itself in co-existing with the surrounding city.

Context

The notion of context has been discussed from two perspectives: one that intertwines existing structural and programmatic layers and the other that treats the overarching societal context. The former relates to how the projects encountered the situation in terms of the underlying complexities of the site, while the latter relates to the socio-political and cultural framework from which the large-scale sprung off.

The research has shown that the site functioned as an important modifying factor affecting the large-scale, yet its impact unfolded through different modalities. Larsen's project was outside the city and the existing urban context was non-existent. What informed the project were considerations on landscape and topographical features of the site, as well as the site's intrinsic lack of urbanity. As such, the idea behind the project was a three-story continuous structure following the landscape while offering a well-defined contextual condition within the project itself. The urban condition where

Platou's project was taking place represented a very different context: it was in one of the most central areas of Oslo, having a high degree of complexity on numerous levels. The project implicitly encountered these issues (from traversing subway tunnel, soil conditions, elevated pedestrian bridges, etc.) but they were subordinated the overarching imaginary of the singular large-scale introvert box. As such, these issues were not applied as instruments legitimizing formal solutions, but rather as unavoidable, yet unquestionable, reifications of urbanization forces. They were present and subsequently had to be embraced. TTA's project had to encounter equally complex context, but how this happened was radically different from the two other cases. The notion of existing context was multilayered: it functioned both as an overarching urbanistic imaginary (the mix-use district containing streets, plazas, and block buildings); as an instrument informing the overall volumetric disposition of the project (neighboring existing streets were prolonged into the project); and as a tool through which the project would be legitimized (the project being an extension of the existing city).

The research has also shown that the large-scale architecture was interwoven with the overarching societal context. Its inherent political and economic tendencies have directly influenced both what kind of building assignments were initiated, and indirectly how architects responded to them in terms of suggested imaginaries. Larsen's project could not be separated from the political framework within which mass-education was one of the important state modernization projects. Platou's project was to perform as an urban renewal project, where a new downtown area at the city's infrastructural hub was to provide a modern commercial arena. TTA's project was inherent with the post-industrial processes unfolding within the regime of the emerging neo-liberal reality and as such, it embraced new economic and developmental narratives.

By applying both notions of the existing context onto the chosen cases, I would argue that these projects were defined by their locality. Larsen's project offered glassed-in streets as an architectural answer to the large-scale challenges. Platou's project offered a synthetic articulation of the grand volume both in terms of program, infrastructure and form. TTA's project managed to scale the large-scale into a tuned solution characterized by alternating dimensions, densities and specificities. The examination of these cases has revealed that the large-scale architecture was intrinsically local. There was an underlying dialectic process where architecture culture's imaginaries encountered the realism of local/national procedural (political, bureaucratic and technocratic) processes; subsequently the large-scale would be domesticated into something specific bound to the Norwegian urban and societal context.

Pedestrianization

This research has shown that pedestrian sphere has functioned as one of the key instigators of the large-scale, being an implicit consequence of the city analogy. The way it was attempted to be solved shows that architectural and urbanistic imaginaries offered a specific type of contextuality embedded within a large-scale project.

Larsen's project managed to offer an intricate system of pedestrian movements, vertically differentiated according to the level of publicness. It consisted of glassed-in streets relating to the ground floor and more private pedestrian paths on the upper floors. The ground floor, 'the streetscape', was conceptualized as an urban 'social' space to which also other public functions such as auditoriums and canteens were attached. As such, it could be perceived as an attempt of re-instating the traditional urban experience found within the term European city. Platou chose a radically different strategy, yet using some of the similar repertoire. Vaterland project's pedestrian realm was formulated around an internal elevated pedestrian street that was diagonally traversing through different spatial conditions of the project. It was inspired by le Corbusier's ideas of choreographed movement defined through continuous spatial sequences. In addition, it could also be seen as a part of a larger system of elevated pedestrian movements planned in the area surrounding the project. TTA's project offered equivalently elaborate strategy for the pedestrian sphere, but clearly, another type of ideals inspired it. The aforementioned traditional urban repertoire of streets, plazas, and boardwalks enhanced by the intertwining block-building's ground floor produced an image of a lively pedestrian-oriented urban district. The interiors were a continuation of the outdoor areas, and as such, the project's ground floor plan functioned as a continuous urban field.

It is clear that by enhancing and strengthening the pedestrian realm, the large-scale architecture engaged additional complexities. The importance of this discussion lies in the fact that the conceptualization of a large-scale project was expanded from being bound to structural and programmatic narratives, to include also discussions on 'soft' values. The notion of social sphere, influence from perceptive psychology and changing societal imperatives from the collective to a consuming individual would introduce another type of layers into the large-scale architecture. The underlying urbanization forces that appeared within the infrastructural constraints were still to be absorbed, but their absorption would happen in relation to 'soft' values. The imagined scale of the pedestrian realm would start resembling that of the traditional European city.

Strategy and Form

This research has shown that the large-scale's developmental logic is influenced by the degree of embedded structural and programmatic openness. It relates to capacity of a project to enhance different scenarios given by specificity of political and financial conditions. This discussion revolves around a possibility of gradual development where a project is executed in several interdependent stages enhancing multiple yet interchangeable scenarios.

The studied cases suggest different approaches to these matters. Larsen's project explicitly enhanced such a performance. It functioned as a general system, offering a strategy based on a simple and repetitive staging. Through its block-setup, it opened up numerous possibilities, all of which were to be compartmentalized through the format of one hundred by hundred meter lot. Platou's project never managed substantially to articulate a more comprehensive developmental strategy because the project was based on a formal narrative of one well-shaped volume and as such, it did not offer the possibility of potential interdependent fragmentation. When the capacity of gradual development was attempted to be integrated in the 1970s iterations, it never went far enough as the leftovers of the previous 1960s approach were still present. TTA's project embraced from the very beginning a developmental capacity where it offered interdependent sub-projects while each of these was developable in terms of transitory needs of the neo-liberal market. It managed to offer a highly articulate performance: it was based on a systematic reading of the developmental staging, while the stages themselves were differentiated yet open enough to enhance multiple scenarios, and subsequently different architectures.

The large-scale architecture would expand its dimensionality: it would transform from being a three-dimensional form to become a four-dimensional formal strategy. It would mutate from being based on a big unbroken form, as it was in the case of Platou's 1960s iterations, to a formal strategy with ability to enhance time component as in the case of Larsen's and TTA's projects. How a project was developed over time became increasingly important, and as such, it was to be embraced architecturally and urbanistically. This is not to say that formal considerations lost their importance, on the contrary, both formal and spatial narratives remained to be equally present, but they would have to be more 'intelligent' as they would facilitate additional capacities.

Post Scriptum: 2016

This research has addressed a period from the late 1960s to the early 1980s. Its focus has been the making of an 'urban sensibility' characterized by architects learning how to approach large-scale assignments within the city. Prior to this,

architects had worked for two decades with the modernist expansion project and the construction of its satellite towns.

Since the early 1980s, the Norwegian urban project has been continually unfolding within the existing cities. Their central areas have been at stake where the processes of densification and transformation materialized. Developments at Tjuvholmen, Vulkan and Skøyen are some newer examples from Oslo. These projects may be said to have a critical mass, as well as they rely on their (potentially parasitic and/or symbiotic) proximity to the existing city: They ‘tap’ into it. Subsequently, they may be said to ‘function’, as they do not perform solely, but in conjunction with several other adjacent projects and urban areas, constituting an assemblage of Oslo’s urbanities. The underlying imaginaries preceding these developments, similarly as in the three studied cases, are propelled by the architects’ (and now developers’) interpretation of traditional urban qualities. They suggest streets and plazas, open first floor façades with shopping arcades, and programmatic mix with housing functioning as the main amalgamating component.

I would argue that the transformation of central areas in main Norwegian cities, for example within Ring 3 of Oslo, is a completed project. Most of the unbuilt plots have been developed in the course of the last thirty years. A new expansion project is in the making, as investors get acquisitions in suburban areas adjacent to newly planned and developed railway and highway infrastructures, as for example in Kolbotn and Ski in relation to Oslo.⁴²¹ Such suburban contexts lack intensity and critical mass of the city, as well as they project a different type of dialectical resistance (neighbors, economic parameters, preservation interests, etc.).⁴²² Yet, when architects approach these new assignments and their inherent situation, they project imaginaries whose operative potential is intrinsically bound to the notion of the existing city and traditional urban qualities. As there is no ‘existing city’ to tap into, nor the urban intensity to draw on, the results end up as malfunctioning projects full of overused conceptual and formal iconography; ‘delocalized’ miniature versions of Aker Brygge (in many cases also with no waterfront). Their main quality is the proximity and easy access to regional infrastructure, hence to the traditional urban centers.

In 2016, we are in a paradoxical situation, but the paradox is reversed. In the late 1960s, architects did not have an operative approach to new large-scale building assignments emerging in the central urban areas: as this thesis explains, they learned how to encounter this new reality in the course of some

421 It should be also noted that the interest in this topic is increasing: Confederation of Norwegian Enterprise (NHO) dedicated a considerable part of its annual 2015 conference on this theme.

422 One could argue that the new university at Dragvoll was in the similar non-urban context. What makes this development different from the contemporary ones in suburbia is its programmatic character (being a university), relative proximity to Trondheim (3–4 kilometers), planned size (500,000 m²) and the character of the client (SBED being a state institution).

fifteen years. Today, architects, after having worked for some thirty years within the city and with a repertoire of ideas, ideals and formal references based on traditional urban qualities, do not have a well-functioning toolbox needed to encounter the new (old) suburban reality. One cannot simply resort to the modernist approach of the 1950s and 1960s, because both the architecture profession and discipline have moved further from where it was back in the 1960s. Contemporary society is much more complex – politically, demographically, culturally and economically. Nor can one reuse the current ‘urban’ approaches, as they are incapable of treating the issue of suburbia’s different type of urbanity characterized by low density, dependency on car and lacking continuities.

Here, I would argue, as both a researcher and a practicing architect, the new reality should be approached in a more open (‘de-ideologized’ and ‘non-normative’) manner. On one side, architects should be tolerant of reality embracing the specificity of suburbia and its inherent urbanity. This should be managed through a - complementary and/or contradictory – intertwining of imaginaries coming from both modernist expansion and post-modernist urban project. The former is untroubled by the large scale while the latter offers its domestication. In addition, the emerging issues concerning landscape and (social) sustainability provide a supplementary framework through which the suburban context may be approached. Referring back to the intro page of this thesis, my 27,000 m² residential project currently in construction in Vienna and on which I have been working in parallel to this research, embraces such a multitude of approaches. The problematizing of two proto modernist types, the lamella and the atrium house, is at the core of the project together with the exploration of an intricate system of outdoor passages and courts. **(158)**

Despite the research’s potentially historical character, I would conclude that it is highly relevant to contemporary discussions in Norwegian architecture and urbanism. It approaches a period whose implications have affected present-day urban landscape. This research dissects its very foundations: It focuses on early examples of large-scale projects and questions how their inherent ‘urban’ terminology is formulated. Very often, architects and developers (and the public itself) take for granted certain ideas, imprecisely replicating them to the verge of a cliché, without actually understanding the ideas’ inherent nature and underlying background. This thesis is an attempt to go in depth, to read drawings, to interview involved partakers, and to explore what drives architecture and its relationship to the city. In such a manner, one may find new directions to follow, leading to the re-invention of architectural and urbanistic sensibility needed if one is to embrace the complexity of the emerging contemporaneity.



158: The carpet and the lamella, Lastenstrasse Project, Vienna, Malarchitecture, 2006–2016 (Illustration: Malarchitecture).

8. List of Figures

HLTS = Henning Larsen Tegnestue (the office);

FSP = F.S. Platou's office;

TTA = Telje-Torp-Aasen Arkitektkontor (the office).

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