The Influence of the 1930 Stockholm Exhibition on the Development of Functionalism and Modernism in Norwegian Post-war Architecture

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The title of this lecture, this manuscript, was given two weeks ahead of its delivery as part of the Norwegian doctoral procedure in connection with the dissertation Architecture and Rhetoric: Text and Design in Architectural Competitions, Oslo 1939-90, in September 1996. The presentation here comprises around one third of the illustrations used in the lecture.

In one of the background chapters in my dissertation I very briefly outlined the architectural image of Oslo and the influence of functionalism prior to the Second World War. I mentioned that the 1930 exhibition in Stockholm, displaying remarkable buildings and unorthodox forms which broke with the historical styles, is generally regarded as the catalyst for the breakthrough of functionalism. The topic given today could be treated in a very broad sense: the modern movement and functionalism, discussing the ideologies and aesthetic principles, and the results as the ideals have been realized in Norway under the various cultural and political circumstances over most of this century. Then I would have needed more than two weeks to prepare myself. Per Råberg, an art historian has published a thorough and thoughtprovoking book, analyzing the programme of the Stockholm pioneers and the practical results in Sweden. Hans Asplund, son of the exhibition architect, has made a critical contribution, a book called "Farewell to functionalism". The ideologial dimension of functionalism has undoubtedly made a great impact on the development of society in this century. I have, however, decided to approach the issue from a more specific and straightforward point of view, and merely by implication situate the issue in a wider societal context.

What was the Stockholm exhibition? What was it about it that made it attain the status as the very symbol of the breakthrough of functionalism and modernism in Scandinavia? Or is this status a collective illusion that is repeated again and again in magazines and lectures? In any case, what were the features – verbal and iconographic in architectural images – that contributed to the success of this event? What was its particular rhetorical power?

Until recently the images of Gunnar Asplund's exhibition pavilions (fig. 1-6) more or less summarized my knowledge of the Stockholm Exhibition. It has been there in the back of my head for more than 30 years since, when I was a student in Trondheim, professor Arne Korsmo often showed slides of these buildings in his lectures. He would show
these pictures in a long series of slides including Dudok's town hall in Hilversum, Le Corbusier's Domino House, works by Frank Lloyd Wright, Charles Eames, Jørn Utzon; moreover, Alvar Aalto's furniture, African women in front of their huts, mesoamerican ruins and silver cutlery. These lectures were great events, and Gunnar Asplund's exhibition buildings symbolized the breakthrough of modernism in Scandinavia. Thus, several generations of young architects got their information about the 1930 exhibition from Korsmo's teaching. Now, that I have gone through an intense study of the matter, the Stockholm Exhibition still remains the very symbol or the turning point after which the architects in the Nordic countries quite unanimously became functionalists, and the architecture and town planning in the respective countries were dominated by functionalist ideologies.

Obviously it is impossible to prove definitely any causal influence on Norwegian architecture. The first part of the question, that of the influence on Norwegian functionalism which flourished before the Second World War, can be answered and demonstrated. With respect to the postwar period, after so many years and dramatic changes, the hypothetical influence of the 1930 Swedish exhibition represents a more intricate and complex problem. And I am inclined to reply with the Norwegian *tja*, which means yes and no, we shall see.

The term functionalism can be extended to include all modern architecture and planning ruled by the principles of utilitarian and technocratic rationality. However, in this
context, I will use the term functionalism in correspondence with the general terminology of architectural history as it refers to the common Nordic style of modernism between the two world wars. Modernism, then, is a wider concept referring to an epoch starting earlier, and which still prevails.

The Stockholm Exhibition which opened in May 1930 was a purely Swedish affair. It was arranged by the Swedish slöjdföreningen, the Association of Applied Arts. The title of the exhibition was konstindustri, konsthantverk och hemslöjd, "Applied Art, Arts and Crafts and Home Craft". Thus, the exhibition not only featured modern architecture, but also artefacts, commodities or applied art, as well as furnished dwellings. The director of the exhibition was the art historian Gregor Paulsson, who at that time also was the director of the Association of Applied Arts. In 1916 he had published the book Den nya arkitekturen, "The New Architecture", and in 1919 Vakrare vardagsvara, 'More Beautiful Everyday Commodities'. Vakrare vardagsvara was a piece of propaganda writing in favour of uniting art and industry; it was a link in the programme for raising the aesthetic quality within the mass production of applied art aimed at a broader public. A large number of applied art and industrial products were exhibited at the 1930 exhibition, such as ceramics, glass, metalware, electrical equipment, books etc. Paulsson played a central role in the development and formulation of the theories that became dominant in the general debate on environmental issues, including architecture and design, in Sweden as well as the rest of Scandinavia.

According to Råberg, the leading theorist on aesthetics in the breakthrough of functionalism, was the architect Uno Åhrén, who in a series of articles treated functionalism as a movement aimed at aesthetic revolution. After the Paris exhibition in 1925 he fervently attacked traditional interior architecture and the applied arts, especially that of the French. Råberg writes:

The absence of clarity and logic, the lacking connection between purpose and form, the superfluity of pretentious artistry, filled Åhrén with a feeling of deep reluctance, but simultaneously evoked a need for liberation: "A wild longing for air, space, freedom seized me."
The joint theory of Paulsson and Åhrén is not purely utilitarian, but the cleft between the objective, scientific and the aesthetic spheres is bridged by the slogan "that which serves the purpose is beautiful". As the functional aesthetic is extended to a general view of life and to include social reality, the aesthetic aspect becomes all the more difficult to handle and to define. Åhrén himself states:

Is then architecture quite simply technology? Yes, that is at least more correct than saying it is an art in the same sense as sculpture and painting. Architecture is to a high degree a purely economic, practical organization technique.5

The main fields of interest for Uno Åhrén's social aesthetic were housing and town planning, and in 1932 he was engaged by the city planning office in Gothenburg where he later became Chief City Planner.

The motto for the 1930 exhibition was acceptera, "accept". The manifesto, acceptera, was worked out and published in 1931 in a 200 page propaganda book focusing on a society in transformation, treating housing and the idea of "home", industry and crafts and aesthetics. It ends by appealing to people to join the forces who are creating the new communal culture that they all needed, according to the manifesto. I quote:
To accept the present reality – only thus we can master it, in order to change it and create a culture which is a flexible tool for life. We do not need the out-grown forms of an old culture in order to maintain our self-esteem. We cannot creep backwards out of our own age. Neither can we jump over something which is troublesome and obscure into a utopian future. We can but look reality in the eyes and accept it in order to master it.⁴

The housing section at the exhibition, which included 10 detached houses and 16 flats for rent designed by different architects attracted a large number of visitors. Although the flats were small, the new ways of shaping windows to let in light yields a new sense of spatiality.

The rooms were generally small, in particular the kitchens. The idea was that each family member, and the maid, should have a separate room (fig. 7-8).

I was most surprised recently, when I looked in the catalogue from the housing section of the exhibition and found these and similar illustrations of the categoric and rigid land-use plans (fig. 9). This did not correspond with the internalized image I had of the Stockholm Exhibition, as mentioned above. The catalogue stresses that the flats should be assessed in correspondence with the respective town planning principles. The Swedes developed studies of daylight conditions in buildings systematically, and extended this type of quantitative “scientificness” to other fields, such as the particular functions of kitchens and bathrooms (fig. 10). The results from this extensive research were then incorporated into the legislation, and the guidelines and financial framework that regulate building and planning enterprises. The case in Norway was quite similar to this, though to a less extensive and rigorous degree.

The exhibition used the argument of the housing shortage in its appeal to the public. The mass aspect of the problem, however, with its inherent monotony, was veiled as the flats in the exhibition were singular units, placed in the unique exhibition environment by the waterfront in Djurgårdsbrunnsviken.

The immediate and most dominant connotation that the words «The Stockholm Exhibition» trigger, however, is the architecture and the images of the exhibition buildings arranged on the site by the sea in Stockholm. Gunnar Asplund, who was commissioned as architect for the main buildings

Fig. 9. Plan principle, the catalogue of the housing section at the Stockholm Exhibition

Fig. 10. Illustrations to a lecture by Gunnar Asplund
and the layout of the exhibition, was a classicist in the 1920s. The City Library, one of his main works, is from that period. Here, in 1930 the charm and simplicity of the Swedish classicism has been profoundly transformed and appears in totally new forms which were brilliant and stunning both in terms of the bareness and the purity of the forms, materials and colours, and also in terms of the elegance, exuberance and cheerfulness that—so to speak—seemed to radiate from the complex. The characteristic quality of the so-called Swedish Grace in architecture thus proved its strength and adaptability, and can be seen in architecture in Sweden from the whole period between the wars.

Apart from the new architecture, the Stockholm Exhibition differed from earlier exhibitions in its ambition to reach not only the upper classes but also the average man in the street. The social aspect was highly emphasized. The meeting with the ordinary people, however, was intense and shocking. The socialist writer Lo-Johansson describes how he was struck by the conservatism, nostalgia and romanticism of the majority of visitors:

> When they saw everything new in the view of the new age, their eyes became round and shielded like the eyes of owls. They did not seem able to tolerate the clarity ... Isn't that nice? they said about an old rocking chair with awful cushions which stood in a corner as an example of hideous taste.

Nevertheless, from the point of view of the development of architecture, the exhibition was a success. The architecture was international yet at the same time Nordic; it was not the extreme, heavy kind of architecture of the Germans, but light, free and informal. The exhibition soon made Gunnar Asplund famous beyond Scandinavia; the Americans are said to have been lost in admiration, and for architecture the event introduced a period in which the so-called Scandinavian Modern thrived.

The art historian Wenche Findal suggests that the Stockholm Exhibition did not have an influence on Norwegian architecture. She points out that Norwegian architects had been influenced by functionalism since the Paris World Exhibition in 1925 which displayed Le Corbusier's striking and innovative Pavilion de l'Esprit Nouveau. Furthermore, after the earlier struggle between the romanticists and the classicists in Norway, classicism had so to speak prepared the way for the new architecture, which from 1928 appeared in new projects on several prominent sites in Oslo. Norwegian architects had visited the modern exhibitions in Germany, in particular the one in Stuttgart in 1927, and a large group of architects went on a study tour to Holland in 1928. Hence, the architects who were to form the core in the new movement were well-prepared for the signals from Stockholm. Nevertheless, there must be more to it; something that had an impact not only on architects but on people in positions of power and influence, and also on the general public who were their clients, customers and supporters.

It is surprising that Byggekunst, the Norwegian architectural review at the time only mentioned the Exhibition rather superficially. A brief commentary focused upon the commercial character of the exhibition, and Sverre Poulsen concluded that "the housing section at the Stockholm Exhibition is the largest and most radical that has been seen in our latitudes". The review Kunst og Kultur, "Art and Culture", featured an illustrated review, in which Thor Kielland stated that "The Funkis Exhibition in Stockholm will be a turning point".

We must look at the rhetorical effect of the Stockholm Exhibition from a broader point of view. The Oslo newspapers had predominantly enthusiastic and superficial reviews of "the new style" and the festivity of the exhibition. Ingeborg Glambek quotes Gunnar Larsen from the evening newspaper Dagbladet:

> This is the poetry of democracy, that wonderful apolitical democracy which consists of our everyday life becoming more beautiful and comfortable ... The Stockholm Exhibition is the smile of functionalism beaming with joy.

The optimism was great. Only the conservative newspapers, which were more critical, indicated an awareness of the social and political implications inherent in functio-
nalism. They regarded the exhibition as an attack upon the institutions of society.

Findal draws attention to the architectural competitions arranged by various newspapers in 1930 and '31 which promoted the functionalist ideals within 'the architecture of small houses', that is small one-family houses and cabins in the mountains or by the coast. The first of these, Aftenposten's competition was inspired by the media focus on the Stockholm Exhibition, which proclaimed "funkis" as the modern architecture. Altogether 529 proposals were submitted to this competition from 200 participants. Ove Bang won the 1st prize in the group for "hunting and skiing cabins" with a timber hut with pitched turfed roof. Knut Knutsen's competition project in the group for detached houses was decidedly an example of international functionalism. (The stereotype thinking leads us to think the other way around, that Bang was the international modernist and Knutsen the national romanticist, but in fact Knut Knutsen designed several functionalist buildings.) Bang also won the 1st prize in the group for detached houses (fig. 11). Neither Aasland and Korsmo, who submitted a joint functionalist project, nor Knutsen, won prizes. However, the projects from these competitions were widely published and became popular throughout the country. I quote from Findal:

The Norwegian architects had translated the international style to a legible, popular language, the essence of which most people did not understand, but which they liked – perhaps because it was modern?

There are however diverging opinions on the extent to which people in general really liked "funkis". Nevertheless, a new market of commissions was opened for architects.

Bernt Heiberg, who was a student in 1930, was on a cycling tour studying the new architecture in Germany while the Stockholm Exhibition was held. He said recently, that throughout the 1930s young architects followed the development in Sweden. According to him, the catalogue from the housing section was important since it demonstrated so well how practical housing could be designed and built. Not only did the exhibition architecture make an impact, but the protagonists from the Stockholm Exhibition were also good at writing, "they were all men of the word". Moreover, they soon came to hold important positions in Sweden, where there was plenty of work and commissions for young architects.

From a more political point of view a group of young architects in Norway initiated the Association of Socialist Architects, who in the period 1933–36 edited a review called Plan. Inspired by different foreign sources, among which the Danish Kritisk Revy, "Critical Review", and the Swedish Byggmästaren, "the Master Builder", they published broad descriptions of the housing sector which was characterized by cramped living conditions and speculation, as well as critical analyses of official housing programmes and other plans and projects. The group supported functionalism and at the same time it criticized the superficiality of fashion architecture. Thus, the adherence to functionalism among architects in Norway after 1930 was remarkably broad, and covered the most politically marked attitudes as well as the more exclusively aesthetic.

In Byggekunst in 1931, Harald Aars expressed the collective spirit among the Norwegian architects as follows:

Although the struggle for «the new objectivity» had lasted for many years and had expressed itself in many ways, it was that which put the things in their right place ... Norway has joined this immense orchestra which is attempting to give the wonderful rhythm and melody of the 20th century form and colour in stone, glass, concrete and steel ... The architects have won the place they deserve in the economic sphere of modern society, the vast new areas such as industry and housing have been conquered for their activities. While we sat in splendid isolation and scoured the horizon for monu-
mental tasks, the architects of today are taking a firm and authoritative grasp of all aspects of building, because they are in touch with, and in harmony with, the era in which they live. It is an era of creativity, the likes of which the world has not seen since the eras of the great architectural epochs.  

The architecture from the period embraces a series of outstanding buildings in Oslo: Skansen restaurant, 1927, by Lars Backer (Fig. 12), Ekeberg restaurant by the same architect in 1928; Kunstnerens Hus, the Association of Artists' Building, 1930, the Odd Fellow building, 1934, Klingenberg cinema, 1938 (Fig. 13), all by Blakstad and Munthe-Kaas; Dronningen, the Royal Yacht Club, 1932, and Vestkantbadet, the baths in the building of Oslo Electricity Works, 1932, both by Bjercke and Eliassen, and Ingierstrand baths, 1934, by Moestue and Schistad. The blocks of flats in Professor Dahls gate from 1931 by Fritjof Reppen (Fig. 14), and the Heia residential complex by Nicolai Beer from 1933 are well known examples of functionalist residential buildings. Several other housing developments were built such as for instance the Brothers Johnsen's housing complex at Sinsen, 40 large 5 storey brick blocks providing homes for 10,000 people. The Marienlyst area in Oslo, built around 1934, it is still Norway's most densely developed residential area. A number of development plans were also made in corre-
spondence with the new "open" principles, among which perhaps the renewal plan for Grünerløkka in Oslo, 1936, was one of the most radical (fig. 15). As we all know, it was not realized.

The works by Ove Bang from the period are important, such as the Building of the Norwegian Lutheran Mission, 1935; Villa Ditlev-Simonsen, 1937; and Samfunnshuset, the building of an organization dedicated to the enlightenment of the working class, 1940 (fig. 16). From around 1930, Arne Korsmo produced several modern detached houses, among which Villa Dammann, 1932; Villa Benjamin, 1935 (fig. 17); and Villa Stenersen, 1939 are main works.

The exhibition Vikan, "We can do it", held in Oslo in 1938 was a successor to the Stockholm Exhibition. The Association of Craft and Industry was the promoter, and a site was chosen at the waterfront alongside the bay Frognerkilen. The competition was won in 1935 by Arne Korsmo, Knut Knutsen and Andreas Nygaard (fig. 18). The exhibition symbol, "the knife cutting through chaos", expresses the belief in progress typical of the period; a belief in the right to or the necessity of the architects to alter the present world by measures as drastic as a surgeon who cuts in the human body.

The architect P. A. M. Mellbye said recently that the Stockholm exhibition was immensely convincing because it demonstrated so brilliantly that it was possible to be completely modern, to employ modern materials and at the same time be completely national, in this case Swedish. Everybody was encouraged and inspired by the architecture which was practical, yet refined, light and airy, vivid and full of joy. The exhibition manifested a local, national aspect of the international architectural movement. This aspect is
constantly present in the objectives that have faced and face architects in Norway, too: the problem of finding ways of shaping our environment in response to contemporary needs and aspirations; the problem of expressing participation in the global community, and at the same time including and enhancing the particular social and geographical qualities of our situation.

The fact that there was plenty of work for architects in Sweden during the 1930s was probably more important for the widespread breakthrough of functionalism than the Stockholm Exhibition itself. The young architects got influential jobs in the public sector and often had good contacts with the leading social democratic movement. In Norway, too, the 1930s was a period of great activity and expansion. The decade started with class struggle, mass unemployment and bad housing conditions, then improved, especially after 1935 when the Labour party came into power by an agreement with the Agrarian party. It is remarkable that both the conservative and the radical camps of society adhered to functionalist architecture, and used it to manifest their influence on the shaping of the new society. The Odd Fellow building representing the business, and the various large buildings of the Labour movement in Oslo, all demonstrate outstanding, modern architecture.

The activity and optimism of the 1930s came to an end with the Second World War and the German occupation of Norway in April 1940. Norwegian architects were cut off from contact with other countries, a contact which had been of great importance. It is noteworthy, as Lars Erik Norland points out that in 1940 almost 60% of the architects who were active in the 1930s had been educated or had practiced abroad. The contact with Germany had been particularly important, but around 20% had been educated in other Nordic countries, England or the US. The war was a period of stagnation and switch-over in Norwegian architecture, and moreover, the immediate postwar period was marked by serious shortage of building materials and rationing.

Several of the leading functionalist architects, Bang, Reppen and Beer, had died during the war, and some had changed their mode of architectural approach. Regarded as a reaction against the Germans it is not surprising that national, Norwegian features appeared in the architecture. We are all familiar with the typical early postwar blocks of flats, plain, four storey blocks with pitched, tile covered roofs. Lillestrøm High School by Finn Bryn, 1951 (fig. 19) is an example of a typical public building from the period. Per Grieg, who had built the outstanding functionalist Sundt
department store in 1938, made the Museum of Shipping in Bergen with solid granite rubblework and a large pitched roof with red tiles, inaugurated in 1962. The moderation of the postwar rebuilding mentality favoured the familiar solutions which could secure practical management and maintenance.

The book *Norske hus*, Norwegian Houses, edited in 1949 by architects who were all functionalists, aspired to present a basis for an architecture which combined the modern needs with our common cultural roots and the skills of our tradition, such as in the wooden architecture. Many of the functionalist buildings from the 1930s are included in this very broad presentation which features Norwegian buildings from the medieval stave churches, a number of vernacular buildings and more traditional, or regional architecture. Around two thirds of the book is dedicated to examples from before the 20th century.

In 1952, modernism in the international sense was reintroduced into Norwegian architecture by the group Pagon, the Norwegian branch of the international CIAM (Les congrès internationaux d'architecture moderne), in which Arne Korsmo played a central role. He was the only member of the group who had practiced before the war, and he had also lived in Stockholm during the war where he met Jorn Utzon with whom he later collaborated and toured the United States and Mexico. Thus, by '52 Korsmo had already spent a year in the US, he had met Ludwig Mies van der Rohe, Frank Lloyd Wright and Charles Eames and other renowned modernists. Although some of the lightness in his own house in Planetveien from 1955 can be regarded as reminiscent of Asplund’s 1930 exhibition, other inspirations are more close at hand (fig. 20).

The attention of the younger architects who marked the postwar modernism was directed beyond Scandinavia, to Europe and other continents. Christian Norberg-Schulz went to North America and interviewed Mies van der Rohe. Sverre Fehn went to North Africa, and Geir Grung to China. They came back with photographs and sketches, and inspired others with their writings in *Byggekunst*. And they designed modern buildings, which were more of the very clear cut, rough, simplified, *brut* concrete or brutalism, than the light and playful Asplund images.
There is another line, a possible connection, that could be drawn with respect to the Stockholm Exhibition in 1930: that is the development within interior design and applied art called Scandinavian Design, which became world renowned in the 1950s, and lasted until 1970. The Swedes had been active in design since 1930. They were more prosperous and had a large productivity in the field, as did also the Danes. Due to the history of the respective countries, the tradition within crafts and industry with respect to craftsmanship and finesse, had a stronger position in Denmark and Sweden than in Norway. But in the ’50s, Norway joined the common Nordic movement with works of very fine quality: glass, ceramics, china, furniture, textiles, lamps and silver work. The review Bonytt, “New Living”, focusing on the design and furnishing of the dwelling or the private home, became an important medium for communication and collaboration between architects and designers. I will mention a few names. Grete Prytz Korosmo (now Kittelsen), who won the Grand Prix for her show case with 12 large enamel works at the Triennale di Milano in 1954 (fig. 21). At the same Triennale Korosmo received the Grand Prix for his exhibition architecture and the Gold Medal for his cutlery design, Tias Eckhoff received the Gold Medal for his steel cutlery and Hermann Bongard the Gold Medal for his series of wine glasses. Two other occurrences contributed importantly to the rich development within design in the ’50s: the prestigious inter-nordic Lunning prize, and the large travelling exhibition Design in Scandinavia which toured the US with great success.

Apart from what I have mentioned, the most temperate contention with respect to the influence of the 1930 Stockholm Exhibition on the postwar Norwegian architecture, would be that of any important occurrence which has preceded the era in question; something that has been integrated into the basic structure of architectural repertoire. The numerous functionalist buildings of the 1930s, and the air of pioneering that surrounds them, have been highly estimated as a source of inspiration in the postwar period. I could find works of architecture which are reminiscent of the Stockholm Exhibition: light, white constructions with light steel stairways, a rounded glass corner with shades, or a glass roofed restaurant with round lamps. But, then, the inspiration might just as well have come from England, France, Spain or Japan.

Exhibitions represent a unique category of architecture. After the first industrial world exhibition in Paris in 1798, exhibitions became an increasingly important and typical feature of the industrial society. Exhibitions offer opportunities of manifesting architecture which is experimental.
and idealistic in an atmosphere of publicity, festivity and optimism. There is an air of unreality and intensity which makes the events and the images stand out, for better or for worse. Associated with that particular sense of collectivity which surrounds such events, they attain a particular kind of memorability. Thus today, we are still able to enjoy, and learn from, the magnificent exhibition architecture from last century such as Crystal Palace and the Eiffel Tower; they are experienced as monuments more or less disconnected from their context. Whereas 19th century constructions demonstrated peaks of engineering, 20th century exhibitions are marked by aesthetic innovation, such as Le Corbusier's pavilion in Paris, Mies van der Rohe's pavilion in Barcelona and Alvar Aalto's in New York. Norwegians are also proud of Sverre Fehn's pavilions in Brussels, 1956, and in Venice, 1962. It is in this perspective that the 1930 Stockholm Exhibition, owing primarily to Gunnar Asplund's elegant and convincing architecture, holds a threshold position in this part of the world.

What was unique with the Stockholm Exhibition was the extent to which its rhetorical power succeeded in synthesizing the various forces of a broad and powerful social movement and expressing it in a spectacular celebration. The vibrations from this condensed event encouraged the development of architecture in the direction in which it had already begun to move, and which, owing to the particular historical circumstances, had ample opportunity to manifest itself in the period that followed it.

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Noter

1. In its limited sense as classification of styles in architectural history, modernism refers to an epoch starting around 1910. Modernism considered as a movement in society, an intellectual attitude or ideology (the essence of which consists of constantly questioning and reevaluating) is related to the rise of industrialism in the 19th century, the roots of which can be found in the Renaissance; some say even in the Middle Ages.
2. Per G. Råberg, Funkionalistisk genombrutt (Stockholm, 1970), p. 48. "Vilken vild längtan efter luft, rymd, frihet grep mig icke"; the linguistic construction with the negation "icke" does not work similarly in English.
3. In Råberg, p. 52.
8. Glambek, s. 129.