Willem Steigenga & Samuel van Embden

Two different approaches towards spatial planning: Design and research

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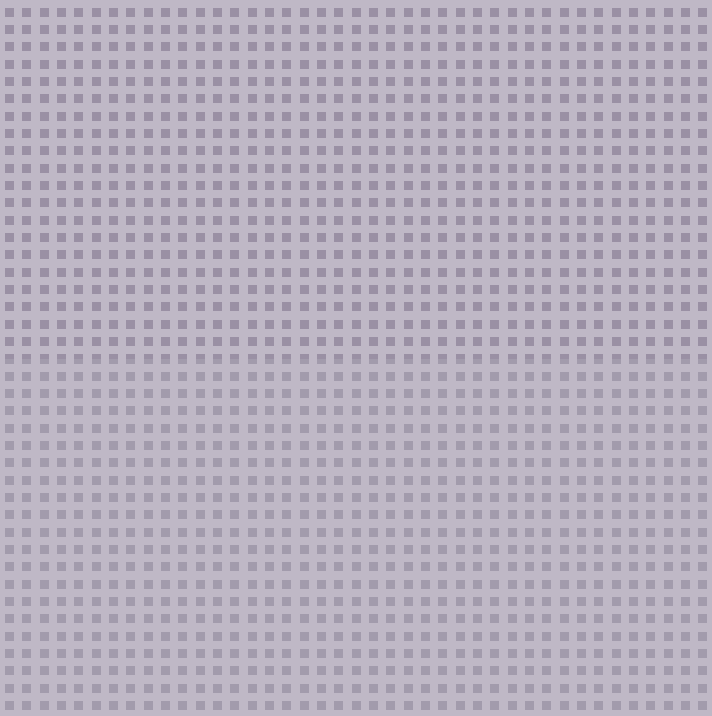

Inaugural Speeches and Other Studies
in the Built Environment

Steigenga & van Embden

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Series Editors: Herman van Bergeijk and Carola Hein
[Chair History of Architecture and Urban Planning, TU Delft]

ISSUE 7

Willem Steigenga & Samuel van Embden
Two different approaches towards spatial planning: design and research

Guest Editors: Yvonne van Mil and Arnold van der Valk
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This booklet contains the inaugural lectures
of Willem Steigenga and Samuel van Embden

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Inaugural Lectures and Other Studies in the Built Environment

This series includes both inaugural speeches and studies that deal with the built environment and historically have a strong point of departure. The Chair of History is the driving force behind the series.

In many countries inaugural speeches have long been unique moments in the careers of academics. As an important moment in a career, they offer a moment to pause, reflect, and envision new approaches. Planners and architects, in particular, have used such speeches to integrate design work and education and to present a programmatic view of their work and role within the academic community. Prepared with great care for a university and general audience, inaugural lectures also offer later researchers' insight into the thoughts of these scholars at a specific moment in time. Material gathered for and endnotes written on the occasion of these lectures can help researchers understand the work habits and thought processes of their authors, perhaps even their relationships with colleagues and students. This series offers inaugural lectures - translated into English and contextualized with scholarly introductions - and other seminal studies to unlock information for comparative research and set the stage for new investigations. The expanded series continues with the inaugural speeches of two Dutch professors who played an important role in the development of the urban planning tradition in the Netherlands.

In 19 November 1962, the socialist planner and social geographer Willem Steigenga delivered his inaugural speech *Van sociale analyse naar social ruimtelijke constructie* (From social analyses to socio-spatial construction) at the University of Amsterdam. In particular he addressed the relationship between city and countryside, predicting that in the future the balance between the two would come under pressure. He believed the old city districts needed to be reconstructed. His reliance on the concept of utopia and of the garden city was not shared by Gerrit van Poelje, professor of administrative sciences, who wrote in a letter to Steigenga that the architectural qualities of someone like Ebenezer Howard were non-existent. Poelje's critique was to be considered as '[an expression] of appreciation and an irrepressible desire to discuss'. In July 1963 Steigenga gave a lecture at the World Congress on Mental Health in Amsterdam and said: 'More living space is needed, habitability must be increased'.[1] Almost a year later, on 11 March 1964, the architect Samuel van Embden gave his inaugural speech in Delft at the Department of Architecture at the Technische Hogeschool. The title was initially 'Design and Sense of Form' and was later published under the title *Form*. Van Embden received many letters congratulating him for his clear and passionate speech but there were also those who critiqued it.[2] He received a long letter from his colleague Roelof Oberman, a professor at the same university, who specialized in the technology of information processing. Oberman objected to the view that the architect should make all the decisions and be seen as a 'uomo universalis' (universal human).

1 Maak grote steden bewoonbaar", *Trouw*, 24-7-1963.

2 Reactions to the speech of Steigenga and Van Embden can be found in their archives, see: Nieuwe Instituut, STEW. I 100624437 and ODEEd 2818.

Van Embden was interviewed several times by newspapers. In an interview two months after giving his speech Van Embden reflected about Dutch architecture and stated: 'I said ten years ago that the Netherlands was building the slums of tomorrow. I still believe that the requirements for housing construction in the Netherlands are set too low. The material used is indestructible and that makes the matter even more questionable'.[3]

The opinions of both professors remain crucial to the debates on the state of urban design and urban planning. In the 1950s and 1960s, these disciplines had come to the foreground with the heated discussions of professors Edmund Bacon and Louis Kahn in Philadelphia. Whereas Kahn defended the free role of the architect as an artist, Bacon saw himself as someone responsible for meeting the economic and development needs of cities and communities. During the same period, Kevin Lynch was stressing the image of the city and mental mapping. His book *The Image of the City* gained enormous status and was influential in the United States in the 1960s. The debates in the United States and elsewhere between architects and planners were not unknown to the Dutch professors and it is against this backdrop that their speeches should be read. This might be a reason why one chose to have no endnotes, whereas the other included abundant references in notes. Both viewpoints have, however, lost none of their relevance.

Herman van Bergeijk and Carola Hein

3 'De architect staat in Nederland aan begin', *Algemeen Dagblad*, 9-5-1964.

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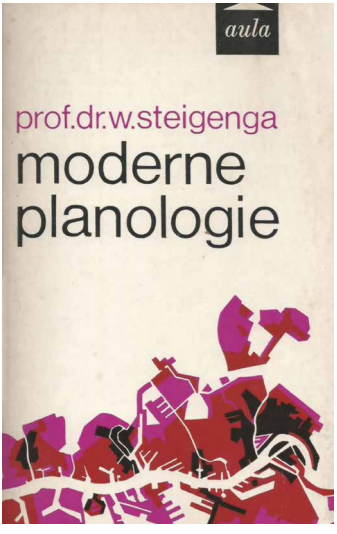

FIG. 1 In his book *Moderne Planologie*, published in 1964, Steigenga outlines the development of planning as a discourse and the principles on which it is based

FIG. 2 Van Embden published *Onze Bouwkunst van allen dag* in 1946 as a manual for advisors to the Welstandscommissies, but it was also used in architecture courses. In the book he promoted 'beauty' as a synonym for 'quality' in both urban and rural architecture.

Yvonne van Mil and Arnold van der Valk

Willem Steigenga versus Samuel van Embden. Two different approaches towards spatial planning: design and research

Our generation will be witness and will participate in one of the most intriguing social happenings in the history of humankind. On the one hand the continuing process of urbanisation of the Western world, on the other hand a hitherto unseen transition of agricultural societies into urban-industrial structures in Asia and Africa. [...] This inevitably raises the question of spatial structure and form, which will now focus on the issue of urbanisation.[1]

Steigenga made this visionary statement at a time when there was a strong belief in social engineering. According to calculations by the Central Statistical Office (Centraal Bureau voor Statistiek), the Dutch population would increase from 7 million in the year 1967 to 20 million by the year 2000, with a corresponding increase in the number of cars, social facilities, etc.[2] The challenges facing spatial planners were clear but it was far from clear which profession should be in charge of tackling these spatial challenges.

1 Steigenga, 1962, p. 4.
2 Rijksplanologische Dienst, 1967, p. 19.

Since the early twentieth century, various planning professions have claimed leadership in Dutch urban and spatial planning, and their evolving discussions have contributed to the development of strategic planning as a profession. This article explores the differences between the two competing schools in the 1950s and 1960s through two pioneering inaugural lectures by prominent representatives: Willem Steigenga, a leading proponent of the emerging group of planning-researchers, and Samuel van Embden, spokesman for architect-planners. The social geographer and planner Steigenga was appointed in 1962 to the first full-time chair of 'planology' and demography at the University of Amsterdam, a new discipline whose proponents claimed the heritage of the survey research tradition in planning practice. In his inaugural lecture *Van sociale analyse naar ruimtelijke konstruktie* (From social analysis to social spatial construction), he sketched the contours of the new discipline, linking it to applied geography and political science. At the Technical University of Delft (TH Delft, now Delft University of Technology), the architect and planner Samuel van Embden defended the stronghold of the designer as an extraordinary professor of architecture from 1964 on. In his inaugural lecture, entitled *Vorm* (Form), he argued for the primacy of planning based on the 'eloquence' of form. For him, urban planning was a holistic art, a domain accessible only to design experts. The rift between architect-planners and planning-researchers was institutionalised and consolidated in academic planning education by the appointment of these two professors with different visions.

Claiming leadership in Urban Planning

Discussions about leadership in the Dutch planning discourse have their origins at the end of the nineteenth century. Spatial planning as an independent professional discipline did not exist in

the Netherlands at that time. Urban planning was predominantly in the hands of two professions, architecture and civil engineering. Civil engineers were trained at the Delft Polytechnic (TH Delft). For architects, it was more common to be apprenticed to a practising architect, preceded by training at a drawing school.[3] From the early 1920s, architects could also be trained at the Delft Polytechnic. Both professions claimed primacy in the planning process. Architect-planners supervised the synthesis and design and the conception of a spatial representation of the desired future arrangement of land uses. Vision and intuition were given priority in the design process. Civil engineers were called upon to collect statistical data on water systems, sanitation, population, business development, transport and leisure.[4] They usually worked within the municipalities of the bigger cities, since the Housing Act of 1901 prescribed that cities with more than 10,000 inhabitants needed an extension plan.

Both architects and civil engineers were united in the Socio-technical Association of Democratic Engineers and Architects (Sociaal- Technische Vereeniging van Democratische Ingenieurs en Architecten), founded in 1904 by newly graduated engineers from the Polytechnical School in Delft. This association played a stimulating role in the professionalisation of spatial planning until the establishment of the Netherlands Institute for Public Housing (Nederlands Instituut voor Volkshuisvesting) in 1918.

Discussions in the field - mainly by civil engineers - ensured that five years later the name of the institute was changed to Netherlands Institute for Public Housing and Urban Planning (Nederland Instituut voor Volkshuisvesting en Stedebouw).

3 De Ruijter, 1983, 13.

4 Faludi & Van der Valk, 1994, p. 47.

This was an important step, and from then on urban planning was regarded as an independent discipline, although it still had a long way to go in terms of professionalisation and 'scientificisation'. In 1935, the Association of Dutch Urban Planners (Bond van Nederlandse Stedebouwkundigen) was founded by a small group of urban planners, mostly directors of private planning firms. From the 1930s onwards, urban planning increasingly developed as an independent discipline. However, it was not until after the Second World War that urban planning education was introduced at universities. At the Landbouwhogeschool Wageningen (now Wageningen University), Wieger Bruin (1893-1971) was appointed extraordinary professor of architecture and town planning in 1947, and in 1948 the planning researcher and data collector Theodoor van Lohuizen (1890-1965) was appointed the first professor of urban planning at TH Delft. Major projects such as the reconstruction after the Second World War, the development of the IJsselmeer polders, the construction of the new towns Zoetermeer and the Bijlmermeer encouraged a further scientific deepening and widening of the field of urban planning.

After the Second World War, spatial planning also developed, as a discipline that focused on spatial development, the planning process and related policymaking. Before the war, practising urban planners in the Netherlands had adopted the survey-before-plan model developed in the Anglo-Saxon world by the Scottish biologist and urban planner Patrick Geddes (1854-1932). The model implied a positivist bias, i.e. planning is the mere application of objective knowledge, assuming that driving social forces can be identified and planned for. Thus, the ideal of scientific planning, i.e. social engineering, analogous to technical disciplines such as civil engineering or building mechanics. In the late 1920s, the municipal urban planning departments (Dienst Stadsontwikkeling) of the two largest cities of the Netherlands, Amsterdam and Rotterdam recruited the first planning-

researchers to work on the surveys. These were people with a civil engineering background, such as Van Lohuizen, who had been trained at the TH Delft and was co-responsible for the General Expansion Plan or Amsterdam (Algemeen Uitbreidingsplan of Amsterdam) (1935), the first spatial planning process in which social science research played an important role.[5] With the establishment of the National Planning Act (Rijksdienst voor het Nationale Plan) in 1941, the preparation of regional plans became mandatory. This can be seen as the beginning of what would later be known as 'planology'.

After the war, however, most surveying work was no longer done by civil engineers but by others. Spatial planning developed rapidly in the middle of the twentieth century. This meant a steady increase in the number of practitioners, but planners could not persuade enough young graduate engineers to follow them in their quest for 'scientific' planning. They had to turn to social scientists such as economists, social geographers and demographers.[6] As early as the 1930s, several geography professors had identified surveying as a suitable outlet for their graduates, and geographers increasingly joined engineering researchers in urban planning practice. With the introduction of national planning in the 1940s, there were plenty of job opportunities for them. A fifth of geographers graduating between 1923 and 1950 found their way into planning.[7] This led to friction.

Initially, the involvement of social scientists and geographers (often called 'sociographers') did not lead to a new discussion of the discipline. Geographers had a long tradition of regional monographs and were concerned only with maintaining the

5 Van Bergeijk, 2015.
6 Steigenga, 1980, p. 64.
7 Faludi & Van der Valk, 1994, p. 83.

engineering ethos of accuracy and completeness. Like urban planners, they were satisfied with the division of labour implied by 'survey-by-plan'. By the 1950s, however, the situation began to polarise again, and both groups of urban planning professionals felt the need to defend their different interests and perspectives on planning. Designers like Van Embden argued that planning is synthetic and imbued with form and 'vision'. Vision is the asset of the individual designer, but it takes a planning team to implement it. They are collectively responsible for the quality of the outcome. For architect-planners, this position implied a claim to supremacy in the planning process. Planning-researchers such as Steigenga contested this narrative, arguing that designers were also accountable to the public. An intuitive approach to analysing social problems and a focus on physical solutions was seen as inappropriate. It was argued that designers only took an instrumental and physical approach to solving social problems. The focus on the future layout of the city - perceived as an end product - implies the neglect of competing interests and the imposition of the planner's unarticulated vision of the future on others. Young planning-researchers criticised architect-planners for being unable or unwilling to make explicit the values and choices underlying their design proposals. Designers failed to make explicit the basis for future land use.[8]

8 Faludi & Van der Valk, 1994, p. 84.

Willem Steigenga and the discipline of planology

W. Steigenga (1913-1974), born in Utrecht, studied human geography at the university of his hometown. He obtained his doctorate in 1939 with a thesis on 'Employment and unemployment in agricultural production' (Werkgelegenheid en werkloosheid in de agrarische productie) and was appointed deputy secretary of the Regional Planning Committee for the city of Utrecht and its surroundings in the same year. Ten years later, in 1949, he was appointed head of the research unit of the Urban Planning Department (Dienst Stadsontwikkeling) of the municipality of Rotterdam. As such, he was involved in the process of collecting data for the conception of a structure plan for the Rotterdam agglomeration and the northern banks of the Nieuwe Waterweg, the main waterway between the harbours and the sea. The research focused on forecasts of demographic and economic development and the consequent need for port expansion, traffic works and urbanisation. In the 1950s Steigenga was elected to the Provincial Council of Zuid-Holland (Provinciale Staten).[9] This may explain his early interest in the political dimension of spatial planning, perceived as decision-making. In 1954 he spent six months as a visiting professor at the University of Minnesota in Minneapolis. There he was confronted with the emerging notions of modern planning in the United States, where planning was understood as a systematic bridging of the gap between knowledge and action, and not merely as urban design. Steigenga then took on the role of self-appointed leader of a group of planning-researchers in the Netherlands who challenged the primacy of the architect-planner in practice.

9 Pronk, 1980.

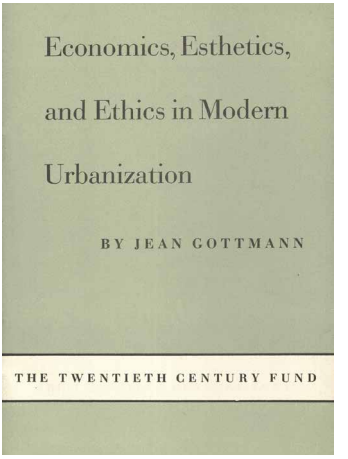

FIG. 3 Cover of the book *Economics, Esthetics and Ethics in Modern Urbanisation*, published in 1962 by the French geographer Jean Gottmann. In his inaugural speech, Steigenga refers to the concept and term "megalopolis" introduced by Gottmann for large urban configurations.

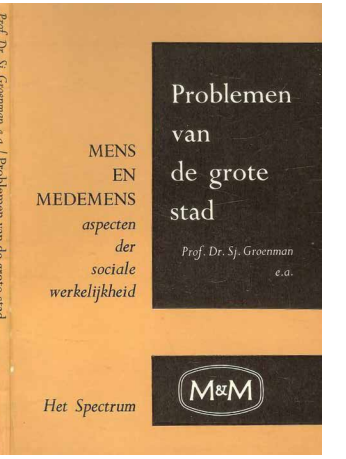

FIG. 4 *Problemen van de grote stad* is a collection of lectures held at the 6th Congress of the Dutch Federation of University Study Societies in Social Sciences in Leiden in 1957. The editor of the book, Prof. Groenman, considered one of the central problems of planning to be the tension between form and context.

Steigenga laid the foundations for a modernist approach to planning that considered the divergent values in society. In the 1950s, he developed a new approach to planning based on the work of Van Lohuizen and American texts on rational decision- making. He called this social science approach to spatial planning 'planology'. The newly created discipline of planology focuses on the knowledge-action nexus. In contrast to the 'new geography', planology claims to be not only analytical and scientific, but also constructive and political (value-laden). However, the separation between applied geography and planology was a gradual process that was not yet complete in 1962, when Steigenga was appointed full professor of planology (and demography) at the University of Amsterdam.

His inaugural lecture focuses on the process of urbanisation and the resulting changes in social and economic structures caused by population growth. His premise is that the pattern of settlement distribution will undergo profound changes. This is particularly relevant to the relationship between cities and the countryside, which is already undergoing a process of fundamental change. He predicts that town and country will take on different appearances, or even lose their specific meaning, as the inherent opposition fades. His lecture is divided into three parts, relating respectively to applied geography, demography and articulation planning as a process of rational choice. Throughout the text he draws on a range of authors, including the geographer Walter Christaller, the sociologists Morton and Lucia White and Karl Mannheim and the urban theorists Paul and Percival Goodman.

He became inspired by the concept of 'géonomie' introduced by the French geographer Maurice-Francois Rouge : "Organiser l'espace, c'est chercher à trouver l'espace, entendu dans sa réalité concrète et géographique, et considéré dans sa totalité aussi bien physique, chimique, biologique, qu'humaine, les structures fonctionelles les plus propres à répondre à la totalité des besoins de l'homme, c'est-à-dire à ses besoins spirituels comme à ses besoins matériels; c'est chercher, et s'efforcer de réaliser, la meilleure adaptation réciproque possible de l'espace et de la société." (Organising space means seeking to find in space, understood in its concrete and geographical reality, and considered in its physical, chemical, biological and human totality, the functional structures best suited to meeting the totality of man's needs, i.e. his spiritual needs as well as his material needs; it means seeking, and striving to achieve, the best possible reciprocal adaptation of space and society.)[10] He defined géonomie as "a new discipline of action,

10 Steigenga, 1962, p. 4; Meeteren, 2022.

distinct from town planning and geography, it is the science of the organisation of space, which studies the structures and balances which affect land use, under the triple aspect of geography, sociology and economics." He saw room for 'un urbanisme expérimental'.[11]

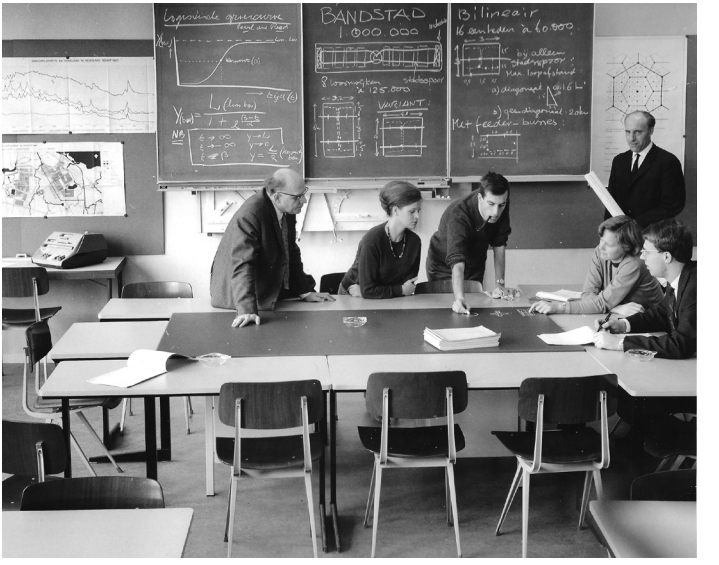

FIG. 5 Steigenga (seated left) discusses spatial models with colleagues and students in a staged photo from around 1967, promoting the Planning Institute at the Municipal University of Amsterdam (Source: Van der Valk, 1983, p. 118).

11 Rouge, 1951.

Steigenga argues that urban design, as practiced by architect-planners, is generally based on simple, one-dimensional programmatic principles and premises that can only provide adequate guidance in straightforward situations, ignoring the complex social implications of physical structures. What is needed is a series of detailed socio-spatial models - now so-called scenarios - to show the full range of consequences of relevant options and thus enable governments to make well-considered decisions. These can be synthesized into a physical design after systematic consideration of the pros and cons of the underlying options. Explaining the underlying values is a necessary condition of modern planning. Different interests must be respected. This is where a socio-spatial model comes in. It is the product of a thought experiment that makes visible a coherent set of values and norms. Different sets of values can be represented in alternative models capable of accommodating complex and contrasting human needs. Social constructs share similarities with utopian representations. However, socio-spatial models are primarily realistic, realizable, consistent, sustainable and rooted in divergent value systems.

Steigenga recommends the conception of alternative spatial structures to provide a basis for publicly accountable decision-making. He identifies the key principles of spatial planning: "If and when government intervention in the organisation of space produces specific consequences for society, government will have to deal with the consequences. Government will feel the need to choose the best available options for intervention. The process of selection requires an appropriate scientific basis. Description, analysis and the design of a one-dimensional programme are not sufficient in the process of creating complex forms and structures".[12] As a political advisor as well as a scientist, Steigenga

12 Steigenga, 1962, p. 7.

was concerned to make political decisions systematic and thus focused on methods of planning as rational decision making. Architect-planners wrongly claimed the domain of constructing future spatial arrangements, thereby projecting their personal values onto society without even considering divergent value patterns. Steigenga argued for new democratic decision-making procedures that would open up planning organisations to differentiated demands for land use. He was in synchrony with the times that were rapidly changing and stepped into the lion's den of planners by asserting that form is first and foremost a social and not an artistic problem. Consequently, planning is "(...) the sum total of decisions aimed at creating the conditions for a particular type of social development (...)."[13] Planning has a constructive dimension, i.e. 'social engineering', which is inherently a task for social scientists and architect-planners.

By putting a claim on the constructive part of planning, Steigenga intentionally invades territory claimed by architect-planners. He brings into question the extent to which the roles of architect-planners and researcher-planners differ. Paradoxically he is also constructing a bridge over the gap between the diverging professions. Having built the bridge, he advances across it by entering the territory that designers have always considered theirs, without filling it with anything other than 'intuition' and 'creative leap'. [14] Steigenga does recognize the creative element in planning, but he denies that it is a prerogative of designers. He is careful though not to arrogate political choice to the planning-researcher, which he called a social engineer. The social engineer is to explore degrees of freedom, "(..) which make it worthwhile to consider various options which then become largely a matter

13 Steigenga, 1971; Faludi & Van der Valk, 1994, p. 117.
14 Faludi & Van der Valk, 1994, p. 117.

of arbitrary political choice. It is then the role of social research to indicate the ultimate consequences of a certain decision. In this manner we can seek ways to improve the quality of these decisions, thus counterbalancing arbitrary choice."[15]

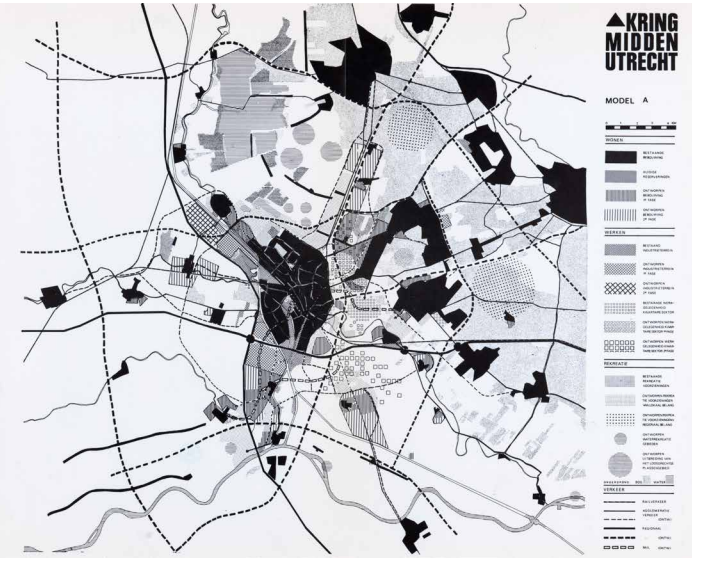

FIG. 6 Thematic map showing the spatial structure of the center of Utrecht, from Steigenga's report *Design of the development programme for central Utrecht area* ('Ontwerp-planologisch ontwikkelingsprogramma voor het gebied midden-Utrecht') (Source: Het Nieuwe Instituut).

15 Steigenga, 1971; Faludi & Van der Valk, 1994, p. 118.

Samuel van Embden in defense of urban design

S.J. van Embden (1904-2000), born in Amsterdam, studied architecture at the TH Delft between 1923 and 1928, where he took classes in urban planning from Professor M.J. Granpré Molière. During his studies he was co-founder and president of the Architectural Students' Association (Bouwkundige Studiekring). Van Embden gained experience in the field of urban planning as secretary of the Advisory Committee for Urban Planning (Vaste Commissie van Advies voor de Uitbreidingsplannen) of the province of Noord-Holland. In the 1930s and during the Second World War, Van Embden was involved in the preparation of advisory reports, urban design and the conception of reconstruction plans for the cities of Veenendaal, Renswoude, Rhenen and Middelburg. After the Second World War he followed his former director at the Institute for Town and Country Planning, ir. C. van Traa, who was appointed director of urban development and reconstruction for the city of Rotterdam. As such, he was involved in the design of the 1945 reconstruction plan for the inner city of Rotterdam. In the meantime, he set up a design office called OD 205 in Delft on the Oude Delft, which specialised in the design of urban expansion plans. In the 1950s and 1960s, Van Embden and his partners took on the challenge of designing urban renewal and renovation plans for the city centres of Delft, Dordrecht, Culemborg and Zwolle. In 1962 and 1965 his office was commissioned to design two new towns, Zoetermeer near The Hague and Lelystad, the future capital of the province of Flevoland. He was also involved in designing the campuses of two newly established Dutch universities in Eindhoven and Enschede. As a designer, Van Embden was a team player. His office was known for interdisciplinary work between architects, urban planners, civil engineers and landscape architects.[16]

16 Lodder, 2000; Van Geest, 1996.

FIG. 7 Plan for the redevelopment of Dordrecht city center by Van Embden, 1961 (Source: Regional Archive Dordrecht).

In 1964, Van Embden accepted the part-time chair of architecture and urban planning at the Technical University of Delft. In his inaugural lecture, he addressed a hot topic among urban planners, namely the role and tasks of the architect-planner. He expressed his concern about the tension between the demands of the job on the one hand and the need for a designer's autonomy on the other. Van Embden denounces the tendency to think of design as a finishing touch or embellishment and he is concerned about the growing alienation of people from the built environment due to overly abstract representations of reality and increasing differentiation and specialisation. These tendencies lead to mental deformations which may ultimately lead to a total loss of understanding and affinity with spatial form in society. His view of planning as a process of rational choice did not go unchallenged by the followers of spatial planning who did not have an eye for the formal consequences. In his inaugural lecture in 1964, Van Embden defines form in urban design as "(..) shaping the totality of the thing which is in need of making. [...] Designers, like architect-planners and architects, overcome the forces of separation and

alienation by surprise, not so much through a conscious effort of unification and understanding, but through the obedient search for the right, obvious and non-personal solution to concrete problems - keeping self-interest apart."[17]

Van Embden's inaugural lecture reads like an apologetic text and seems - albeit in a detached way - to be a reaction to the rise of researcher-planners like Steigenga and their new attitudes to planning, which began to increasingly influence Dutch planning practice. "Architects and urban planners will soon discover a crossroads where they will have to make a choice. They will be faced with the question of whether the keywords *specialisation*, *division* of labour and *teamwork* are applicable to their personal professional activities. [...] Experts from more forward-looking sectors are coming to convert us to their way of life".[18] He contends that urban designers can legitimately claim primacy in the planning process because they have a vocation and a societal responsibility to search for comprehensive, integral solutions to extremely complex problems which cannot be solved partially. Architect-planners are a rare breed compared to practitioners of the free arts such as painting, literature and sculpture. Urban design and planning are applied arts and crafts at once. The architect-planner is confronted with functional objects, the terms of use of which need to be deduced from the social and physical context. Form must not and cannot be reduced to aspects or components. If a newly conceived object - such as a campus or a business park - is labelled and thus attached to its 'form', in that instant the designer steps forward and takes responsibility individually and completely. Ultimately the art of urban design is the privilege of a group of experts who are proficient in the 'eloquence' of form.

17 Van Embden, 1964, p. 2.
18 Van Embden, 1964, p. 3.

To support his view of the distinction between the work of the designer and the preparatory technical work of the researcher, Van Embden quotes Van Lohuizen in his inaugural lecture: "Urban design is essentially a creative work. Its purpose is to give form, to find a form for the environment in which man lives that is both effective and beautiful; one could also say that it satisfies both the external and the internal needs of man. Scientific research in town planning must serve this purpose. However, the researcher will only fully serve this purpose if he succeeds in demonstrating creative ability in his work [...]".[19]

Van Embden denies that urban form can be the subject of teamwork, let alone democratic decision-making. However, planners must work with sociologists, economists, demographers, financial experts, lawyers, civil engineers, traffic engineers, surveyors and one or more elected officials. The urban planner listens. He takes their information but does not negotiate. According to van Embden, it is a misunderstanding to think that an acceptable plan can be worked out democratically at a round table. The plan - the form - is the product of design, the work of a creative mind. Van Embden refers to an old designers' joke in which 'it is claimed that the camel was the product of a collective effort to design a horse'. [20] Van Embden emphasises that architect-planners can only collaborate meaningfully with other designers who master the language of form. He argues that form, construction, function and design are the domain of a privileged group of architect-planners. They have the right skills; they speak the language of form and it is therefore natural for them to claim primacy in the planning process.[21] In his view compromises lead to unwanted results.

19 Van Lohuizen, 1940; Van Embden 1964, pp. 5-6.
20 Van Embden 1964, p. 7.
21 Faludi & Van der Valk, 1994, p. 119.

FIG. 8 Van Embden shakes hands with Professor Granpré Molière (Source: Het Nieuwe Instituut).

Prolonged controversy

The controversy between the two factions continued well into the 1990s. Architect-planners continued to claim supremacy in the planning process, based on their command of the language of form and their unique ability to grasp its essence. Planning-researchers developed their own professional platforms and were highly successful on the labour market. The profession grew and developed its own institutions, universities, and college courses. In many respects the two approaches were happily living apart together. Architect-planners were trained at Technical Universities of Delft and Eindhoven or the Academy of Architecture at Amsterdam. Graduated architect-planners are listed in the register

of architects and the title 'urban planner' is statutorily protected. Since the 1960s planner-researchers or 'planologists' graduate from the planning schools of the Universities of Amsterdam, Utrecht, Nijmegen, Groningen and Wageningen, but are not given a protected title. A large proportion of the professionals who use the label 'planologist' are trained as human geographers, sociologists, lawyers, biologists, soil scientists, economists. Their backgrounds are totally different.

As early as 1963, the Netherlands Institute for Housing and Urban Planning changed its name to the Netherlands Institute for Housing and Spatial Planning (Nederlands Instituut voor Ruimtelijke Ordening en Volkshuisvesting), giving 'planology' and 'planologist' an official place in the institute. Following the example of the Association of Dutch Urban Planners, planning-researchers organised themselves into the Professional Association of Dutch Planners (Bond van Nederlandse Planologen) in 1991. Even when the BNP was founded, there were discussions about a possible merger with urban planners. In a publication honouring the 50th anniversary of the Association of Dutch Urban Planners in 1985, Van Embden foresees "a further widening of the traditional, deep gap between the worlds of alphas and betas (gradually supplemented by gammas). A development that puts architects, urban planners and spatial planners, whose fields of work, after all, lie precisely in or between the two worlds, in an extremely incongruous position."[22]

Thirteen years later, in 1998, a merger between the professional organisations of urban planners and planologists to form the Professional Association of Dutch Urban Designers and Planners (Beroepsvereniging van Nederlandse Stedebouwkundigen en

22 Van Embden, 1985, p. 76.

Planologen) opened a new era of close cooperation between them. The merger of the professional organisations at the end of the last millennium marks an era of rapprochement between architect-planners and planner-researchers/planologists. Unity in planning is a fact, not just an ideal. In planning practice, collegial cooperation is the rule; conflicts over primacy have become the exception. Nevertheless, the wounds have not healed completely, as the old opposition between designers and researchers is still engraved in the educational system and also proliferate in many governmental institutions that have to address the psychical future of the country.

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FIG. 9 Portrait of Steigenga, date unknown (Source: Het Nieuwe Instituut).

Willem Steigenga

From Social Analysis to Socio-Spatial Construction

Speech delivered at the acceptance of the office of full professor of planning and demography at the University of Amsterdam on 19 November 1962 by Dr W. Steigenga.

to Dr Suzanne E. Steigenga-Kouwe, who made it possible for me to do my scientific work as a leisure activity.

Mr President-Curator, The Lady and Gentlemen Members of the Curatorium of this University, Gentlemen Members of the Presidium, Ladies and Gentlemen Professors, Lectors, and other Lecturers and members of the academic staff, Ladies and Gentlemen Students, and to all of you who have honoured this ceremony with your presence,

Esteemed Listeners,

The extensive growth in population that our society is facing this century is one of the main causes of advancing urbanisation. In the first half of this century, the world population increased from around 1550 to around 2500 million, an increase of around 60%. In the second half of this century, according to recent projections, the world's population will increase to around 6300 million, an increase of about 150%. This rapid development, which is largely

due to the improvement in mortality rates, while the level of marital fertility has remained almost the same or only slightly decreased, can undoubtedly be seen as a major driving force behind what are almost revolutionary changes in our world view. 1)

The social and economic structural changes caused by this population growth will fundamentally alter the structure of the distribution pattern. The *urban-rural* population ratio, which has come under great strain in the past two centuries, will be at the heart of social change in the coming decades as perhaps never before. This means that the two-element urban-rural term, which actually refers to the population distribution in predominantly agrarian, feudal and pre-industrial forms of society, will either acquire a completely different meaning or lose it altogether.

Even before the Second World War, *Christaller* could see that these concepts no longer corresponded to the more complicated reality. 2)

Kingsley Davis used population data from cities with more than 100,000 inhabitants to try to give a picture of the development of urbanisation in the past. Globally, the process of urbanisation only began to acquire any significance during the 19th century. At the time, it was mainly limited to *Europe* and *North America*. The 20th century is proving to be the century of urbanisation everywhere, not only in Western countries, but also in Asia and Africa. 3)

The extent and intensity of urbanisation in the Western world during the first half of this century is illustrated by an example taken from a recent work by the French geographer, *Gottmann*. It calculated that the growth of the urban population in the *United States* during this period was equal to the total populations of the *United Kingdom, the Netherlands, Norway* and *Ireland*. The *Megalopolis*, the totality of urban concentrations on the north-east coast of the *United States*, accounted for one quarter

of this; an increase which in absolute figures was equal to the current population of the Dutch-Flemish language area of the *Benelux countries.* 4)

Between 1850 and 1950, an ever-increasing proportion of the world's population growth occurred in cities with more than 100,000 inhabitants. There is no reason to suppose that this will be any different in the next half century. Based on comparison with the past, it is reasonable to assume that at least one-third of the expected global population increase will contribute to the further growth of cities above 100,000 inhabitants. This means that by the year 2000, the world's urban population will be five times the urban population in 1950.

It is obvious to assume that this rapid urbanisation will be accompanied by profound social changes, all the more intense the greater the economic and technological deficit is, and the more the family structure differs from that of Western societies. Our generation will witness and participate in one of the most fascinating social spectacles in human history. On the one hand, the continued and consistent urbanisation of the Western world, while on the other, an unprecedentedly rapid transformation of agrarian forms of society in the Asian and African worlds into urban-industrial ones. A transformation that partly finds an analogy in that of the Western world in the period of the Industrial Revolution. Population density will increase globally and nationally, and urban housing and types of occupancy will increasingly make their mark on the earth's surface. This inevitably raises the issue of spatial structure and spatial form, which will now centre on the issue of urbanisation.

However much urbanisation imposes itself on us in all its clarity as a social phenomenon, there is perhaps no second phenomenon that is so much avoided as this problem. A romantic and irrational

conservatism tries to avoid the spatial consequences of population growth and of all the economic and technological forces that are currently accelerating the process of urbanisation. It evades the question of what urbanised society could or should look like. It tries to escape the consequences of social development on the basis of past memories of the countryside and the small town. American sociologists *Morton and Lucia White*, who have produced an incisive analysis of the attitudes of American philosophers and statesmen towards large cities, rightly argue that there need be no difference of opinion with them on the fundamental values of upbringing, education, personality formation and human interactions. But, these sociologists say, it is not permissible to be self-deceived as to where these values will take shape and form. "*The wilderness, the isolated farm, the plantation, the self-contained New-England towns, the detached neighborhood are things of the past. All the world's a city now and there is no escaping urbanization, not even in outer space*". 5) It would be wrong to believe that the negative attitude towards the big city that has just been described is found only in the United States. Even in this country, it is not difficult to demonstrate such a negative attitude, based on recent government bills and guidelines, for example. People should be not surprised at this! After all, the process of detaching ourselves from the reference framework of our youth is surely not an easy one? And is urbanisation not a recent phenomenon? Perhaps it is also the inescapable that we oppose which, moreover, seems to elude our influence, alienating us from the worldview of our youth.

After the First World War especially, governments have undoubtedly been concerned with the form and structure of the city, focusing on form. However, to the extent that the government is willing to attempt maintaining control of development, it is handicapped in many cases by an insufficiently founded theoretical understanding. For example, there is hardly any

identifiable proper theoretical basis regarding settlement forms. It is therefore gratifying that, in relation to form by American planners – I am thinking here of Kevin Lynch in particular – an important step towards the formation of theory has been underway since the Second World War. 6)

Given the intensity of current urbanisation, knowledge of the spatial forms and structures in which urbanisation is taking place, both in terms of individual urban settlements and urbanisation patterns as a whole, is becoming increasingly important. It will therefore be necessary to reflect on which spatial forms and structures are able to provide, as alternatives, an appropriate framework for the future structural changes in our society. This framework concerns both the relationship between urban and rural forms of housing and occupancy, and between these forms of housing and occupancy themselves.

The search and creation of appropriate spatial forms and structures – in other words, how space is organised – within which these processes of social change are taking place is increasingly becoming a specific task at the heart of our priorities. The spatial organisation in which society finds its expression is not only the result of all kinds of autonomous processes in society itself, but also of arbitrary decisions taken by social institutions and government bodies.

The research into and thoughtful creation of spatial forms and structures is part of the field of *planning*: an interdisciplinary synthesis-oriented science that relies heavily on the application of social geography. The Dutch word 'planologie' ('planning') is analogous to the name 'géonomie' introduced by Frenchman *Maurice-Francois Rouge*, which for him means the organisation of space. In his further elaboration of this concept, *Rouge* says: „*Organiser l'espace, c'est chercher à trouver pour l'espace, entendu*

dans sa réalité concrete et géographique, et considéré dans sa totalité aussi bien physique, chimique, biologique, qu'humaine, les structures fonctionelles les plus propres à répondre à la totalité des besoins de l'homme, c'est-à-dire a ses besoins spirituels comme à ses besoins matériels; c'est chercher, et s'efforcer de réaliser, la meilleure adaptation réciproque possible de l'espace et de la société". (« Organizing space means seeking to find for space, understood in its concrete and geographical reality, and considered in its physical, chemical, biological and human totality, the functional structures best suited to responding to the totality of man's needs, that is to say, his spiritual needs as well as his material needs; it is seeking, and striving to achieve, the best possible reciprocal adaptation of space and society"). 7) This task description gives cause to consider in more detail the contribution of the social sciences to planning, which is explicitly seen here as a social discipline with the aim of achieving the best possible adjustment between space and society.

In this context, it will be useful to reflect for a moment on the development of social thought, which has taken shape in the Western world as a result of the social changes in the last two centuries.

The social misery in the early 19th-century industrial centres, child labour, overcrowding in factory towns, the uprooting of the proletariat who flooded into the rapidly expanding cities, the depopulation of large parts of the English countryside in particular, required social measures, which were prepared by many state commissions who gave telling descriptions of the processes of social change resulting from the Industrial Revolution. Many have therefore drawn on these sources to illustrate their views on the structure of society. 8)

This way of describing social conditions later took its shape in the '*social survey movement*', which, especially in England, focused on urban life. The value of these studies – essentially descriptions – is not limited to the large amount of material that has been collected on the processes of social change resulting from industrialisation and urbanisation in the 18th and 19th centuries, although this material is still of value to those social science researchers who come face-to-face with the current problems of so-called underdeveloped areas. Do these studies not in many ways remind them of these social descriptions as they come into contact with the social uprooting and proletarianisation resulting from urbanisation? And are they not reminded of *Le Play*'s reflections on family life when they observe the dissolution of existing family relationships as a result of the 'modernisation' of these societies? 9)

Even more important than the material collected, however, is the impetus this social survey movement has given to the development of social research, and therefore also to the construction of the system of modern analytical social sciences, aimed at objectivity. Moreover, a number of important figures can be identified in the 19th century whose theoretical work in the sociological and economic field resulted in the formulation of desiderata regarding the existing or desired form of society. They make a clear link between their social science interest and their opinion-making concerning society. This stimulated them to examine the social structure, leading to them laying the foundations of today's social sciences.

At the beginning of the long development of social science research and thinking were amazement and indignation: the drive for analysis for the sake of knowing, and analysis for the possibility of reform. The products of this development were the survey or description and the analysis.

This helped build a socio-critical thinking apparatus, the value of which to our society can hardly be underestimated. It enables us to make sober and objective analyses, giving us an accurate picture of the building blocks and structure of our society.

Insofar as the social sciences have approached spatial forms and structures descriptively and analytically, this has been done almost exclusively with the aim of explaining the organisation of space as a product of social processes and possible individual arbitrary decisions. This has been the case, among others, in urban and settlement geography, which, after all, yielded a valuable contribution to planning by Walter Christaller, who researched a pattern of dispersal in its totality. 10) Of course, this study virtually ignores the question – similarly formulated by *Rouge* in his definition cited earlier – of whether the pattern of distribution analysed can be regarded as the best adjustment between space and society. To avoid such an evaluative question, it would be necessary to ask whether other dispersal patterns are conceivable, and what consequences they would have for society compared to the existing pattern. Such a question is of particularly major significance from a planning perspective.

I previously felt it necessary to point out that, particularly with regard to spatial issues, the contribution of social science research should not be limited to descriptions and analyses, no matter how important these may be in themselves. 11)

Until recently, it was widely assumed that the contribution of the social sciences to spatial planning should not extend beyond descriptions and analyses. This in itself would be justified if it were established that spatial design and structuring had no social consequences. Occasionally, this will undoubtedly be the case. However, it should be expressly pointed out that the organisation of space determines in part the processes that take place in

society. The way in which social activities develop and take shape depends to a large extent on the spatial opportunities that exist. How great an influence a spatial form can have on the course of certain relationships or processes, for example, will depend on the circumstances.

A particular social activity's need for space can usually be satisfied in various ways. Each of these possibilities will generate side effects, for instance in the social or economic arena, which in turn have consequences for human interrelationships. Shaping the micro or macro society in a certain way or intervening in the existing spatial organisation can have far-reaching consequences. After all, various social processes, relationships, and structures can be influenced in part, sometimes even determined, by changes in the organisation of space. Where this is the case, it is obvious that spatial forms and structures should be regarded not as an end in themselves, but partly as a means to encourage or redirect social developments in a certain direction, or to slow them down.

Consequently, not every spatial form or structure has the same value for us. A particular form may be particularly attractive aesthetically, but at the same time may be particularly objectionable, socially. Aesthetics should never be the goal. Tellingly, when Popper talks about the composing of cities for the sake of beauty, he says that human lives "must not be made the means by which an artist can satisfy his desire for self-expression." "Much as I sympathise," says Popper, "*with the aesthetic urge, I still believe that an artist must seek his expression in material other than in human personalities.*" "*Dreams of beauty should give way to the need to help those in need and protect those suffering injustice, and to the need to build institutions to these ends.*" 12)

It is precisely with a view to future urbanisation that careful consideration will have to be given to what the social value of the various forms of urbanisation is, both in terms of the individual city and the overall pattern of urbanisation. In other words, under what conditions will the best adaptation be obtained between space and society? What standards should this adaptation meet?

These questions belong in the planning arena. Indeed, in general, social sciences research will focus on description and analysis, from which a prognosis will subsequently follow. These methods always assume real situations in the past and present. However, as soon as the question is asked whether a certain organisation of space – for instance, in the form of a population distribution pattern – is the best conceivable adjustment between society and space, we immediately run into two fundamental points.

Firstly, the question is explicitly normative, which therefore implies a certain hierarchy of values as a frame of reference.

Secondly, however, such a question can only be answered if we are able to construct, either on the basis of the same or different social and normative assumptions, various theoretical distribution patterns for comparison purposes. It should be noted that planning in our country is already moving in this direction. Indeed, as a basis for the elaboration of expansion plans, regional plans, plans for new towns, schedules are being drawn up, albeit incomplete, of requirements and needs that these plans should take into account. However, these schedules remain elementary and make barely any reference to alternative options. They also generally ignore the question of what the underlying hierarchy of values is. The most illustrious and probably oldest example of formulating a programme is found in American literature. The strongly ecologically oriented urban planner *Clarence A. Perry*, building on the ecological studies of the *Chicago* school (*Park*,

Burgess, and *McKenzie*), was particularly concerned with the planning of residential areas in his extensive planning-related studies of *New York and its environs*. For him, the right urban form is a prerequisite for the development of a human society that meets certain standards. *Perry* laid down the conditions for what he believed to be the right form and structure in a clearly formulated programme, which gave birth to "*neighbourhood planning*" as a socio-spatial task. 13)

Under certain uncomplicated circumstances, a social needs programme will undoubtedly suffice. Nevertheless, the question arises whether such a programme – with the prognostic and pseudo-prognostic elements incorporated in it – does not fall short in many respects once more complicated conditions are involved. The requirements, for example, that a new city, a city to be reconstructed, an urbanisation pattern, or an overall population distribution pattern should meet, are difficult to capture in a programme. A programme is better suited to a situation that is continuing, or at most is being slightly redirected. And even then, a programme for a new residential district for example, often proves to be inadequate. After all, to what social structure should a programme for a new residential area or a modernisation plan refer? The structure of society to which such a programme should refer can never be the existing one, but will always be a future one.

A number of questions arise here, which are all the more pressing now that an intensive urbanisation process necessitates a reflection on new urban life forms and structures.

In order to attempt to point out here a direction in which planning could develop further, I would like to turn for a moment to a form of thinking, which in the past took the form of *utopianism*. This way of thinking is not limited to description and analysis, but is typically constructive. I would like to see utopia as a precursor

to what might be called *social constructivism*. A utopian does not confine himself to describing unacceptable situations and patiently dissecting the social structure. His interest is directed at giving a concrete picture of a completely different society to the existing one. A utopian will sometimes not even analyse, but on the basis of the hierarchy of values he adheres to, will try to construct a new society that is completely consistent in his mind.

Shortly before the advent of merchant capitalism, *Thomas More* had already written his *Utopia*, intended as a social critique. 14) He would later be emulated, especially as the Industrial Revolution took hold in the 18th and 19th centuries. A whole series of utopias and in our century – to use a word from *Meyerson* – anti-utopias constitute one of the most interesting products of social thought of recent centuries, even if they mostly rely on an inadequate social understanding. 15) Moreover, it is questionable to what extent its realisation would be desirable. *Thomas More*'s well-known utopia is an excellent example of an extremely nasty and interfering totalitarian state, as much as of a perfectly static society. In this respect, it corresponds to the works of *Huxley*, *Orwell* and others considered anti-utopian by *Meyerson*. It is striking that in recent decades – influenced by the increasing need for planning – interest among sociologists and others in utopia has grown. The theoretician of American urbanism *Lewis Mumford* opened his voluminous oeuvre shortly after the First World War with a penetrating study of utopias. 16) The German sociologist *Bahrdt* concluded his recent reflections on the modern city, even with a somewhat exaggerated focus on utopia. 17) *Margaret Mead*, but especially her compatriot *David Riesman*, regard a revival of utopian thinking as an important intellectual task in the present. 18) In the Netherlands, *Polak*, who is an entrepreneur as well as a sociologist and economist, defends the meaning of utopia, saying among other things: "*The rational construction of a utopia*

requires economic and sociological skill, in addition to a sense of organisational detail, and finely branched coherence.... 19)

Raymond Ruyer regards the intention behind a utopia positively and, in a certain sense, positivisitically, both scientifically and technically. 20) Utopia is a game, but a serious one. The creative imagination, of which the game element forms an inherent part, forms the essential building blocks into a social whole. While practitioners of the social sciences have generally approached utopia with much trepidation, architecturally oriented town planners on the other hand – often endowed with a rich imagination – have shown their propensity for utopian thinking in many ways. *David Riesman* notes that "*the architectural fraternity has combined to produce and to stimulate thinking in the utopian tradition-thinking which at its best combines respect for material fact with ability, even enthusiasm, for transcending the reality*" 21) He also remarks that the results were mostly markedly one-side because no other forms of technological experience or the results of the study of society were used. More positive, however, have been the results of utopian *James Buckingham*, for example, with his highly detailed designs of cities to replace the old factory towns. In 1848, says *Lewis Mumford*, who discusses this utopia at length, *Buckingham*'s ideas were still a delusion. However, they would be put forward again by *Ebenezer Howard* in his book Tomorrow, forming the basis of the English garden cities *Letchworth* and *Welwyn*, created under *Howard*'s influence. This also laid the foundation of the modern bourgeois residential culture of the twentieth century. 22)

A utopia can undoubtedly be regarded as a social construction that results in a model of society; in the planning context set out here, therefore, a socio-spatial model. Utopia and a socio-spatial model have in common that they are the constructions of thought, in which possibilities are put forward that are conceivable in the

complexity of life. The game element also plays an important role in social construction, but it ends where critical thinking probes the combination of possibilities regarding their feasibility, the consistency of combinations, sustainability, and the value system underlying it. When *Polak* argues that the utopian must introduce a hierarchy of values to establish his model, which presupposes a particular image of society, the same is equally true of a socio-spatial model. 23)

Utopia stands in a timeless relationship to the reality of the present. Instead, the socio-spatial model will have to connect directly to the present, and is always tied to a geographical and a social framework. However, the utopia is "*nowhere!*" The socio-spatial model gives a point in the near future, while utopia is always the achieved goal, becoming a timeless monotony.

And above all, any socio-spatial model will make clear the hierarchy of values on which it is based, and by what means the intended result can be obtained.

The utopias in urban planning, no matter how and by whom they are used, make clear to us that there is an explicit need to create socio-spatial models, in order to explore the direction in which the organisation of space can or perhaps should be influenced in the future.

When influencing the organisation of space leads to certain consequences for society, there will be consequences for the government. The government will want to make a conscious choice from the available options to influence the organisation of space. Preparing this choice of alternatives requires an appropriate scientific basis, for which descriptions, analyses, and programming are not fully adequate as soon as more complicated forms and structures are involved. What is preventing us from

proceeding with socio-spatial models, even though alternative economic plans have long been drawn up in the arena of economic-political action at regional and national level? Current urban design is generally based on programme propositions and premises that are adequate only in less complicated and orderly situations. Even then, it is difficult for the government to assess a proposed expansion plan for example on its social merits. More important and more complex objects and entities require a clearer understanding of social background, objective, and consequence. A programme can never be sufficient in such cases. Only a series of elaborated socio-spatial models can enable the government responsible to make a well-considered decision, which can only then be incorporated into an urban design.

Drawing up these socio-spatial models will require not only special skills and expertise, but also creative imagination and the understanding that this is an interdisciplinary activity between the relevant social, economic, technical, and architectural sciences. This interdisciplinary character is already evident in the experiments of brothers *Paul* and *Percival Goodman*. 24) They constructed – as a basis for their sketch designs – some models of cities based on different sociological, ecological, economic, technological, and architectural assumptions. The work of the *Goodman* brothers is all the more valuable as they also make clear which hierarchy of values underpins their principles. As far as the social sciences are concerned, it will be possible and necessary to build on the original tasks, those of survey and analysis. Indeed, the survey or description can provide a clear insight into the construction of at least one socio-spatial model, the situation of the present. The trick will be to uncover the '*principia media*' which together determine the socio-spatial structure of the society in question. 25)

The construction of socio-spatial models will be particularly important in view of the ongoing urbanisation in *the Netherlands*, as well as in the *core area of Western Europe* formed by the *Rhine*, *Maas*, and *Scheldt* river basins. 26) The problem of urbanisation will require a solution in two directions. On the one hand, it will concern the form and structure of the individual city, and on the other, the totality of national and therefore also of Western European urbanisation patterns. There is an explicit connection between the two facets of urbanisation. The hierarchy of values that is to underpin the form and structure of the individual city must not clash with the hierarchy of values that will underpin the pattern of urbanisation as a whole. 27)

First of all, we will consider here for a moment the socio-spatial models that could be studied in relation to individual cities in the Netherlands. It is appropriate to draw attention to some important social data, which will be important for urbanisation in the future. First, there is the continuing growth in population. Notwithstanding the fact that a further decline in marital fertility is expected in *the Netherlands* too, it cannot be considered likely that in the future, in around the year 2000 for example, this will lead to a balance between birth and death rates. This is partly due to several social changes, which will lead not only to an improvement in mortality rates, but also to a reduction in the age at which people marry and an increase in marriage frequency. In particular, the increasing surplus of males will result in an increase in the proportion of women who marry. It is therefore obvious to expect further – and not insignificant! – population growth, even after 1980, the year to which official population forecasts relate. It is striking, however, that the national spatial policy in our country assumes a fixed population number in a certain year, as was customary for municipal expansion plans. The year 1980 and the population of 14 million associated with it have a well-nigh magical significance for a non-heathen country. However, it

would make more sense in a country with high population density and continuing population growth not to assume a specific year, but rather increasing population numbers. After all, when the humanisation of the city is taken as the normative starting point, which also includes the significance of the open space around the city, the question arises not only how such a normative premise can be realised in any particular randomly chosen year, but above all how this will remain possible with an ever-increasing population.

It is not impossible that measures that could be acceptable to maintain a certain degree of habitability with a population of 14 million, under the tacit assumption of a constant population, would be utterly fatal for maintaining habitability if growth were to continue. This continued growth could lead to a population of 17 to 20 million around the year 2000.

Such a population would lead to a tripling of the current urban population; however, the urban built-up area would increase by six to nine times.

These important quantitative changes call attention to a second point that needs to be considered when constructing socio-spatial models for future urbanisation patterns. This point relates to the distribution of the increasing number of urban dwellers across town and country.

Based on an analysis of population data from around 1950, it is legitimate to infer that of the around 10 million inhabitants in that year, 6 million lived in municipalities of a distinctly urban character, 3 million as rural dwellers in the countryside, to which, however, around 1 million urban dwellers and urbanised rural dwellers aligned themselves. So there is already a clear distribution of urban population across rural areas, especially around larger

agglomerations. With regard to the continuing population growth, the question now arises as to how urbanisation will be accommodated. There is an issue here that can only be resolved against the backdrop of various possible urban models. 28)

The third major issue here is the question of the care system in its broadest sense. It is precisely this aspect of increasing suburbanisation that has either been neglected or approached in a one-sided manner.

Finally, the structure of cities and urban settlements will also have to be the object of further consideration. Are we striving – within the urbanisation pattern – for specialisation of cities or are we striving for 'balanced towns'? 29)

In this listing of structural principles, I have highlighted only a few important and most obvious ones. They will therefore be the primary starting point for answering the question of which urban forms can be studied as socio-spatial models. Each of these forms – *the concentric city, the star-shaped city, the elongated city, the dispersed city and even the non-urban settlement or pseudo-village* – has its own negative and positive consequences for society with regard to, for example, traffic problems, contact with open space, family life, leisure, commuting, and many other problems. 30) Some of these forms impose restrictions on the expected population growth. More important than individual cities, however, will be the pattern of urbanisation within which they take their place.

The urbanisation patterns of *the Netherlands* and the *Western European core area* both have specific and analogous characteristics, which are most clearly shown when the *Western European core area* is compared to the *north-east coast of the United States*.

Both urbanisation patterns are the resultant, on the one hand, of accurately traceable factors, and on the other, of an inextricable series of complicated and mostly arbitrary decisions. The form and structure of individual cities within these patterns have essentially been end-products, but not deliberate objectives, in a series of social processes. The fundamental difference between the two patterns of urbanisation becomes most apparent when they are compared using *Kingsley Davis*' definition of metropolises. 31) In the Western European heartland, around 22 million people live in some 36 metropolises, while on the *north-east coast of the United States*, almost the same number of inhabitants live in three – *New York*, *Boston*, and *Philadelphia*. The population density in the latter area appears to be only one-third of that in the Western European core area. The urbanisation pattern of the area in question in the *United States* has a distinctly concentrated character, compared to the deconcentrated character of the urbanisation pattern of the *Western European core area*.

The development of the urbanisation pattern, both in *the Netherlands* and in the *Western European core area*, is one of the most essential problems that we will have to face in the next half century. Due to a variety of historical, geographical, and political factors, the pattern of spread has a deconcentrated character. Although it is not certain – a comparative study with the *United States* will be necessary – it probably provides a favourable starting point for further spatial policy. On the other hand, however, it appears that in the Netherlands in particular, the open space around these metropolises is threatened by pseudo-urbanisation, which could seriously affect its value in the near future.

It is therefore evident that an attempt should be made, at national and Western European level, to find a basis for the spatial policy that is to be followed, both with regard to the pattern of urbanisation as a whole and with regard to individual cities, by

drawing up socio-spatial models. Based on various normative premises, models will have to be produced by combining the constituent *principia media* that will enable the government to make a choice.

The shape of the city and the pattern of urbanisation, leisure activities, the importance of open spaces, public transport, the social structure of individual cities, and the hierarchy within the pattern of urbanisation are just a few of the many elements that will have a part in this construction, against the background of European integration and increasing prosperity.

This brings me to the end of my outline description of recent developments in planning. Developments that are moving from social analysis to socio-spatial construction. Developments that will also make it possible for us to face tomorrow's issues today, with all the resources of modern social science thinking, which are available to us thanks to a century and a half of social science research and theory building.

Madam, and Gentlemen Curators of this University,

It is pleasing that you were the first in the country to wish to attach a chair in planning and demography to the University. Both sciences, however important in the societal arena, have generally been neglected in this country's university curricula. The fact that you have chosen me to teach these subjects at your University fills me with gratitude. I can assure you of my total dedication to this task.

Where the subjects described in my teaching mission in particular are concerned with contemporary social problems, this will also mean that, within the university framework, attention will have to be focused in the first place on the fundamental research related

to these problems. I therefore hope to appeal to your cooperation to enable me to make an active contribution to this within the university context.

Ladies and Gentlemen Professors,

The two subjects of planning and demography not only have many interfaces with other sciences but are themselves interdisciplinary in nature. I am therefore pleased that, due to the nature of the teaching assignment entrusted to me, I will often have the opportunity to come into contact with you. Indeed, an unprecedented wealth of issues lies hidden in the interface of different sciences. These issues can often only be resolved by acknowledging the need for an interdisciplinary approach and therefore collaboration. For other reasons, too, there will be contact between you and me, albeit unconscious and passive on your part. Indeed, within the framework of demography, you will unwittingly also be an object of study. Your birth alone has granted you a place in the many excellent demographic statistics of Statistics Netherlands. As the years have gone by, most of you have appeared in the marriage statistics and then made your own contribution, not to be underestimated, to increasing the quantity and quality of our population. And by creating population growth, you have also contributed to the many spatial problems that are placing a strain on our country, the city of Amsterdam, and this university.

Dear Colleague de Vries Reilingh,

You and I have met on many previous occasions for many different reasons. These occasional meetings will now be turned into a regular collaborative partnership. I am pleased to have been given the opportunity to build on the foundations laid by you with your students; after all,

social geography is one of the most important foundations for planning-based thinking. Both social geography and planning are concerned with the forms of housing and occupancy within which social processes take place.

Dear Colleague Bakker, Dear Colleague Kobben,

You both are among the most immediate colleagues with whom I will have close contact in the future. The subjects taught by you on the one hand give spatial planning an insight into physical structures, while on the other hand pointing out the differentiation of culture that is so important for spatial planning. For the way Colleague de Vries Reilingh and both of you have treated me in the past and present, I express my sincere thanks.

My thanks also go to all those colleagues in the social and economic sciences with whom I have had the privilege of contact in the past.

Ladies and Gentlemen Students,

The nature of the social problems of our society is changing all the time. Even if, in our Western cultural circle, the problems that have aroused our social conscience since the Industrial Revolution are partly a thing of the past, new issues are constantly coming up. This places a demand on the social sciences for flexibility, a constant adjustment to new social forms and problems. And this again brings with it the necessity of constantly revising the scientific apparatus of methods, techniques, and concepts to be used. It also changes the system of social sciences, grouping new sciences around ever-changing social problems. The two sciences that have now been added to your study options deal with problems that are becoming increasingly urgent and which demand the attention of science, government, and society. Planning, in particular, will bring the practitioner of social sciences into close contact with everyday

social life and political action. This contact will undoubtedly place high demands on your professional competence and integrity. However, it will also open up unprecedented opportunities for scientific activity; opportunities that allow scope for initiative and pioneering work, precisely by combining and integrating the different sciences in which social thought has differentiated and specialised. I am now delighted to have the opportunity to work in daily contact with the younger generation in a university context on the development of those sciences, which in the recent past could only be the starting point for my official activities and subject of leisure activities.

Thank you for your attention.

Endnotes

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12) K. R. Popper, De vrije samenleving en haar vijanden. Part I, De betovering door Plato, Bussum, p. 241.

13) Clarence Arthur Perry, The neighborhood unit, Volume VII, Neighborhood and Community Planning, p. 22130, in „Regional Plan of New York and its environs", 1929. See also the reflections of Helmut Klages, Der Nachbarschaftsgedanke und die nachbarliche Wirklichkeit in der Groszstadt. Forschungsberichte des Wirtschafts- und Verkehrsministeriums Nordrhein-Westfalen, No. 566, 1958, p. 10-26.

14) Thomas More, Utopia. Translated, introduced and annotated by A. H. Kan, Rotterdam, 1949. M. H. van der Zeyde, Thomas More, Amsterdam 1946. Karl Kautsky, Die Vorläufer des Neueren Sozialismus, I, 2. Stuttgart 1895, p. 437-506.

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15) Martin Meyerson, Utopian traditions and the planning of cities, in The Future Metropolis, Daedalus, Winter 1961, p. 187.

16) Lewis Mumford, The story of utopias, New York, 1922.

17) Hans Paul Bahrdt, Die moderne Groszstadt. Soziologischen Überlegungen zum Städtebau, Reinbek bei Hamburg, 1961, p. 122.

18) Margaret Mead, Towards more vivid Utopias, Science 8-11-1957, p. 957-961.
"What, then may the conditions be within which we may foster more vivid utopias? Three sources which seem accessible to us with our present knowledge are these: the imaginations of little children, where each newborn child brings a unique and new potential to our perception and ordering of the world;
the provision of materials from other cultures, so that in the interplay between the great achievements of the human race in the many separate, unique, but comparable cultures men have built, new combinations and forms may occur; and the creation of conditions within which those who know the possibilities for the future, which are emerging from scientific discoveries, can combine their insights with the insights of those who know the full and astounding range of what man has achieved in the past, without mutations Oi the hypertrophies of extrasensory perception currently invoted by the creators of our folklore of the future, the writers of science fiction". (960).
David Riesman, Some observations on community plans and utopia, The Yale Law Journal, Vol. 57, 1947-1948, p. 173-200.
"A revival of the tradition of utopian thinking seems to me one of the important intellectual tasks of today." A utopia I define as a rational belief which is in the long-run interest of the holder: it is a belief, not in an existing reality but in a potential reality; it must not violate what we know of nature, including human nature, though it may extrapolate our present technology and must transcend our present social organization (173).
"utopia is time located in the future: it is a social order which has not yet been tried, though it is a realistic possibility, not a mere idle dream". (179).
"Few scholars achieve the kind of sensitive and friendly relation to reality what is necessary for utopian creation – a relation in which one respects "what is" but includes in it also "what might be" and "what ought to be". (180). "One small group in our society, the architectural fraternity has continued to produce and to stimulate thinking in the utopian tradition-thinking which at its best combines respect for material fact with ability, even enthusiasm, for transcending the given". (180).
"However, the architectural utopians have generally remained isolated from other forms of technological experience and analytical tools (classical economics and social psychology, for example); they have indulged like most isolated men, in fanaticism and wars of sectarian annihilation, as in Wright's assault on Le Corbusier we might even suggest that such eccentricities and blindnesses are necessary to preserve their "nerve of failure, their courage to be different and to stand alone." (181)

19) F. L. Polak, De toekomst is verleden tijd, cultuur-futuristische verkenningen, Utrecht 1955, part I. The quote is taken from "Het sociale leven in al zijn facetten", part II, p. 948.
"The quoted sentence reads in full as follows: "The rational reconstruction of a utopia requires economic and sociological skills, in addition to a sense of organisational detail and intricate structural interrelationships, which are seldom

seen in artists, in addition to the meticulous study and consistent use of all kinds of data, which are also very difficult to process compositionally for a work of art, all of which is therefore not very appealing to the mentality and temperament of the more impulsive and emotional aesthete."

20) Raymond Ruyer, L'Utopie et les Utopies, Paris, 1950, p. 4. „L'intention de l'utopie est positive et même positiviste, l'utopie est un jeu, mais un jeu sérieux."

21) David Riesman, ibid., p. 180.

22) Lewis Mumford, ibid. In contrast to Mumford, H. M. Jolles (De tuinstadbeweging in Engeland), T.K.N.A.G., 1954, p. 138. regards James S. Buckingham not as a utopian but as an urban planner!

23) F. L. Polak, ibid., p. 956.
"To establish his model, the utopian must introduce a category and hierarchy of values, which presupposes a certain image about the world and man, about society and the state, about the divine and the meaning of earthly existence. Stepping into this realm of human values, the utopian sets standards, particularly as regards the unfolding of a humane society."

24) Martin Meyerson mentions the striking work of the Goodman brothers in his article mentioned in note 15. He refers to the original, yet out-of-print 1947 edition by the University of Chicago Press. Percival and Paul Goodman, Communities: means of livelihood and ways of life.
A "second edition, revised" was published in 1960 as no. V 174 (Vintage Books), Random House, New-York. In particular, reference should be made to the "three community paradigms", which address successively: (1) "a city of efficient consumption"; (2) a new community; the elimination of the difference between production and consumption"; (3) "planned security with minimum regulation". David Riesman in his article cited earlier devotes a detailed discussion to this. He points out that the new urban designs for Warsaw prepared by Szymon and Helen Syrkus and others recall one of the Goodman's paradigms to a large extent.

25) Karl Mannheim, Man and Society. In an Age of Reconstruction. Studies in modern social structure, London, 1946 Part IV.

26) The core area of Western Europe includes, according to Philippe Pinchemel's introduction to the "Journées Européennes d'Etudes des 27 et 28 Septembre 1962 4 Lille"; France du Nord, Pas de Calais, Ardennes-Lorraine, Alsace, Rheinland- Pfalz, Nordrhein-Westphalen, Saar, Belgium, Luxembourg and the Netherlands.

27) W. Steigenga, De verstedelijking van Nederland, Tijdschrift Volkshuisvesting en Stedebouw, 1961, July-August.

28) W. Steigenga, The Urbanization of the Netherlands. An analysis of the development of a decentralised urbanization pattern from 1880-1950, T.K.N.A.G., 1960, p. 324 et seq id., Sub-urbanisatie en decentralisatie in Nederland. Een eerste verkenning van recente verschijnselen. T.E.S.G. 1961 p. 210 et seq id.,

De verstedelijking van Nederland. Een voorbeeld van een gedecentraliseerd urbanisatiepatroon. T.E.S.G. 1961 p. 253 et seq

29) With regard to this problem that is neglected in the Netherlands, see R. Taylor, Occupational balance in towns, Town and Country planning 1951, p. 53-58. A. E. Smailes, Ill balanced communities, in E. A. Gutkind, Creative Demobilisation. Volume, p. 226. London, 1942. Paul B. Gillen, The distribution of occupations as a city yardstick, Columbia University, New York, 1951. W. Steigenga, A comparative analysis and a classification of Netherlands Towns, T.E.S.G. 1955, p. 105 et seq. P. Pinchemel and others, Niveaux optima des villes. Essai de définition d'aprés l'analyse des structures urbaines du Nord et du Pas-de-Calais. Comité d'études regionales économiques et sociales. Onzième Cahier, Lille, Juillet 1959.

30) See, e.g., the literature of Kevin Lynch referred to in note 6.

31) International Urban Research, The world's metropolitan areas, University of California Press, 1959.

FIG. 10 Series of portraits of Willem Steigenga, date unknown (Source: Het Nieuwe Instituut).

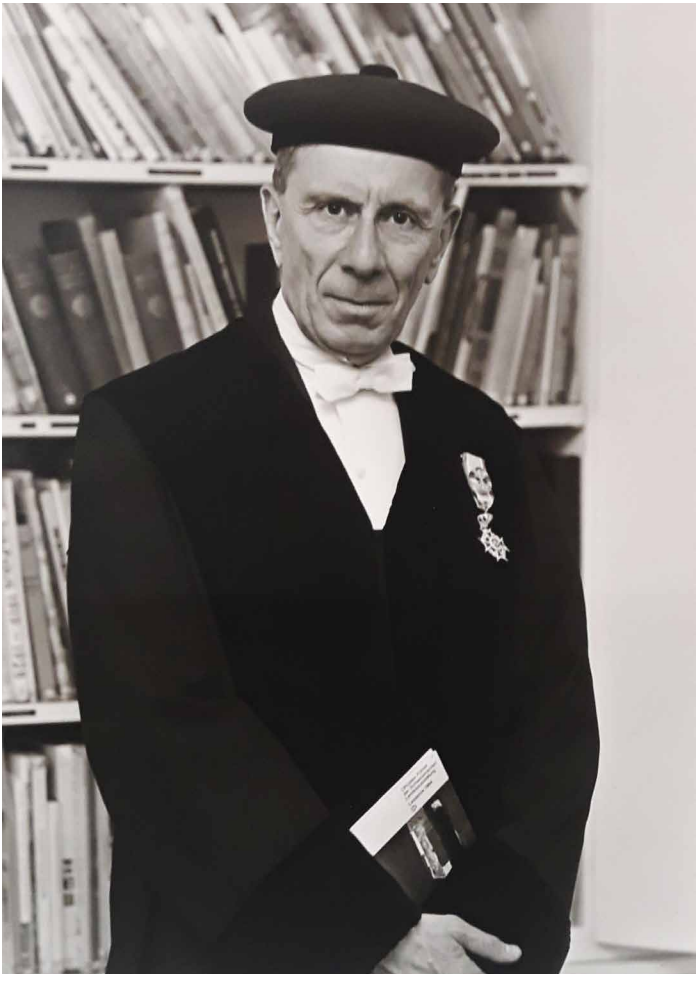

FIG. 11 Portrait of Samuel van Embden at his inauguration in 1964 (Source: Het Nieuwe Instituut).

Samuel van Embden

Form

Speech delivered at the acceptance of the office of extraordinary professor of architecture at the Delft Technical College on Wednesday 11 March 1964 by ir. S.J. van Embden (Uitgeverij Waltman Delft)

Designing – giving form – is modelling the total thing yet to be made, not adding something external to an essentially already made thing as an afterthought.

Our ever-expanding challenges and our incorporation into ever-expanding human groups require both an increasingly abstract, increasingly analytical approach to reality, and ever-deeper differentiation and specialisation of our work. The result is increasing one-sidedness and continuing mutual alienation. The one-sidedness leads to mental distortion, which can go on to become deformity and, among other things – for the vast majority – to atrophy of the sense of form: form-stupidity, form-deafness, form-blindness. Among the small minority of liberal artists, a complementary hypertrophy of form awareness. Their current theme is the bankruptcy of the centuries old rationalisation of our collective world view. They are driven not primarily by a need for communication (how would they be, in a world of alienation?), but by an urge for personal expression and for – nonetheless impossible – conjuring up the terrifying, increasingly unreal, reality.

Leading people and making the things we need also amount to design, but of an entirely different nature. These designers, which includes urban planners and architects, overcome division and alienation by

stealth, not by consciously striving for connection and understanding, but – setting themselves aside – by obediently seeking the apparently correct, impersonal solution to their specific tasks.

This obedience and this subservience bring their own reward: the fulfilment of the ends sought by the liberal arts.

Their forms become communicative and intelligible from the context of function and construction; their forms evoke the unboundedness and strangeness of space, bringing it under their spell.

A prerequisite is to leave these designers to their full task and not condemn them to form specialisation.

Another is that these designers do not try to act as liberal artists.

Gentlemen Curators, Gentlemen Professors, Ladies and Gentlemen Students and to everyone here whose presence is testament to their interest.

Ladies and Gentlemen,

in the near future, architects and town planners will reach a crossroads at which they will have to make a choice. They will face the question of whether the key terms specialisation, allocation of tasks, and teamwork apply to their own professional activities. This question is generally answered in the affirmative for them and by those around them, the motive for architects being that the building profession is clearly an area that is lagging behind, not only quantitatively but also qualitatively. Experts from advanced sectors are coming to convert us to their way of life. We are invited to position ourselves as specialists – form specialists – in a circle of like-minded specialists, as equals: for the schedule

of requirements, for the calculations of constructions, for the physical building qualities (heat management, ventilation, acoustics), and the technical installations, and as specialists for the organisation of the building process.

For us, there is only gain: relief from laborious and, in general, trivial extra work, a focus solely on the "exalted", on our vocation: the pure form.

However, the architect responds like a true representative of a backward field: at best reserved, usually dismissive. He has nothing against cooperation from experts; on the contrary, he meets them every day, and usually enjoys doing so. They are indispensable to him. But it is impossible for his own specific task: regarding the shaping of a design as a specialism like any other, to be performed during a dialogue with other specialists, for which he could share responsibility with non-designers.

Planners and town planners hear even stronger motivation for the same invitation: sit at a round table with sociologists, economists, demographers, financiers, lawyers, statisticians, civil engineers and, not forgetting traffic specialists, as well as with one or more representatives of the board. In some countries, a surveyor is also present.

If it concerns a regional plan, the party is even bigger. From the discussion of equals, the plan would emerge 'naturally' at that table.

The urban planner readily agrees to the discussion centre and takes up his role there without a second thought. But it is predominantly passive, listening, absorbing. Not for a moment does he believe that in this circle, at this round table, an acceptable plan would somehow emerge, and certain not 'naturally'. Nor does he believe at all that shaping a design could be regarded as a specialism like any other.

What makes architects and town planners so timorous?

Is it an unwillingness to discuss form? Far from it, they generally talk about it a lot (too much). But they do so in circles of designers who speak the same language.

Is it concern for their own standing, for loss of a dominant position? Perhaps this adds some colour to our responses: we are ordinary people, neither ambition nor vanity is alien to us, nor is the aim to bear our responsibilities.

One certain motive is the healthy, intuitive resistance against the one-sidedness that threatens all specialisation, the ever-increasing impoverishment, the narrowing, the ever narrower pit into which the expert digs himself deeper and deeper, his perspective and overview steadily decreasing and his contact with his fellow men, fellow specialists, all busy digging themselves in as well, ever diminishing too. He objects to the image of the ant and bee states, which no longer have a single complete insect; on the one hand, there is the army of infertile workers, on the other, that 'solely fertility' monster, the queen. Our industrialising and organising world tends everywhere – regardless of political ideology – towards such a constellation, towards eradication of the uomo universale, even in its most modest manifestations.

Each subsequent step along this path encounters renewed resistance which, however, is repeatedly defeated by the calculation of a new balance of material gain over ideal loss. But each subsequent step also loads the specialist with new feelings of guilt, offset, it should be said, by a further discharge of responsibilities. The urge to complete and finalise the self versus the desire and need to fit into society; the never-ending conflict.

Here now, for the first time, the real reason for our dismissive attitude is revealed. The designer of the human environment must – precisely by virtue of the task assigned to him – rely on (and therefore build on) his own completeness and versatility.

In this respect, he is in the good company of real statesmen, real administrators, real philosophers, real educators, real artists, real entrepreneurs, and company managers and all other actual and responsible shapers of society, people and things, in the company therefore of all those people whose task it is to directly and concretely intervene in reality, not analysing but integrating, who have to make choices and who, however much they are informed in advance and checked afterwards, in the end have to make these choices on their own authority. People who are responsible for actions with lasting effect, not just advice.

Primarily, then, it is not about personal honour or group interest, it is about our work.

The form required of us – not to be confused with an added embellishment – cannot be dealt with separately: it represents the totality of the thing to be made.

The experts formulate guidelines and desires, components of a schedule of requirements. This schedule remains a collection of data. The designer transposes this formulation into the thing itself. At the same time, he integrates the *collection* of the schedule into the *composition*, the *unity* of this *thing*.

Please understand: these translating, summarising and concluding tasks of the designer need not necessarily be nobler than the preparatory specialist work. Van Lohuizen says, speaking

of “scientific research in urban planning” (and in urban planning, the proportions stand out particularly clearly):

“*Urban planning is essentially creative labour. Its aim is to shape, to find a form for the environment in which people live that is both effective and beautiful; one could also say one that satisfies both the outer and inner needs of man.*

Scientific research should put itself at the disposal of urban development, in the service of this goal. However, the researcher will only fully serve this purpose if he succeeds in showing creative ability in his work as well. He must set about shaping the results of his studies in such a way that they can be used as building blocks to synthesise the image of the living world that will populate the future city or region, so that he can show this image to the urban planner and enable him to shape a body for it, which is a living expression of his nature and being”.

That ends the quotation from Van Lohuizen.

There is no way the designer could take over this task from the researchers and specialised experts; he lacks the training, the knowledge, and, usually, the aptitude to do so. But he clearly has his own task, which is, in a variation on van Lohuizen’s words:

…. to form a body that meets as perfectly as possible the spiritual and material needs of the living world that will populate the future city or region, a body that also in its appearance is the living expression of its nature and being.

That having been understood, the designer’s work first really begins where the others generally end.

But only in principle: if all goes well, mission and fulfilment, analysis and synthesis, will extensively overlap. The designer has participated as a critical observer in the programme preparation; as soon as he starts working himself, he will complete it as necessary with everything that remained implicit during the preparation – all that is general and non-quantifiable. Soon, moreover, he invites the programme makers into his kitchen, for further information and for criticism. His visitors, upon seeing the consequences of their collective wish list, will reflect further on its accuracy.

While the soundness of the design will soon be tested in use, the soundness of the programme will be tested during transposition. After all, the schedule of requirements and sketch design jointly evolve towards a final stage.

It is this, in itself indispensable dialogue, that led to the misunderstanding about the mixed company at the round table.

I say *misunderstanding*, or do people really think they can determine a *form* at that round table in a democratic way? It is said that the camel was the product of a joint effort aimed at designing a horse.

Such collaboration with sub-specialists requires an unfulfillable task on the part of the man responsible for the totality; it irrevocably gives rise to what is referred to as a *contraption*.

And there's something else. Each expert contributes not only his expert input to a limited facet of the programme, but is also its advocate. This inevitably leads to contradictions, as there is no piece of work in which every wish can be fully realised. Only the designer, whose guideline is the perfection of the totality, is authorised to make a judgement here. In a committee, the result

always depends less on who is right and who is not than it does on who has the best debating skills.

And what if one or more of the members of the team has a greater or lesser interest in the final decision? Can and should he then be taking part in reaching a decision that involves the interest he represents making a concession? Take a representative of public transport (railways, bus routes), who would have to acknowledge that a mass transport system that is uneconomical in itself should be accepted for the sake of the economy of the whole. Should he be involved in any decision on that?

Or a municipal representative, who would have to acknowledge that a boundary shift at the expense of his town or village would be in the interest of the project in question.

Behind the misunderstanding about the position of the designer lies a deep and growing misunderstanding about the form itself.

The client, as a practical realist, usually considers the serious work to have been done once the schedule has been analysed, the problems it contains have been resolved, and their solutions combined. If these solutions are not entirely compatible – and that is more often the case than not – then he expects a reasonable compromise. All that remains then is to make the as yet rather unsightly result presentable. A search is then made for someone with good taste and skills who can achieve that – the architect. How many factory projects have come about in this way? Essentially, things are often hardly any different with educational buildings and hospitals; some advisory body provides so many standard solutions for general structure and components in advance that the designer is left with little else to worry about but the cut of

his jacket. In all these and many other cases, the decisions have already been made, the architect relegated to the position of a specialist, alongside other specialists.

Only the 'real' monuments of fine architecture – churches and town halls – remain the preserve of the architect.

But beyond these so-called prestigious tasks, what architect is not familiar with the uplifting assurance that accompanies many a utilitarian commission 'that it really doesn't have to be *pretty* this time', just efficient and cheap. As if they are mutually incompatible.

Similarly, what colleague is not familiar with the benevolent smile that sometimes comes when being granted his architectural wishes – seemingly to please him personally, and not because the smiling client believes him to be right or because they find his arguments to be so remarkably persuasive, but because the client perhaps believes that he can fulfil his cultural obligations in this way. The architect even feels some pressure from the usually unspoken suspicion that he is willing to provide an orange, even if it is only a pip that has been asked for, and is set primarily on offering not the usable thing that is wanted, but the 'beautiful' thing that is not wanted – whatever is meant by that term.

In urban planning, the confusion is actually closer to hand. The 'form' is somewhat – but wrongly – equated solely with the 'visual image to be witnessed at a glance' – and this is obviously no longer the case, especially with regard to regional or national plans. Moreover, even when the urban planner projects an urban district, he never provides the final product, only the scenario. Others, architects, bring the visible end result into view.

The general shrinking of the sense of form is certainly related to the increasing organisation and systematisation of our society.

This requires ever-increasing abstraction. For example, the government and its organs cannot nor should not, for reasons of arbitrariness and iniquity, work ex officio other than with abstractions: not with people but with residents and citizens, not with natural persons but with legal persons, not with parks and palaces, but with buildings and yards.

In every other large organisation, things are moving in the same direction. Is it any wonder then that directors, administrators, and managers are gradually becoming unilaterally accessible only to the aspects of things that are manageable for them, which appeal to them in their own language? This language now is that of formulations and typically not that of forms. During their discussions, they can consult the authors of memoranda, reports and programmes and, counting and measuring, they can objectively test a design against these documents.

But if they ever have to consider appreciating the forms, and give their judgement on their eloquence, clarity, or purity – in other words, if their ability to interpret or their sense of quality were called upon, they would be out of their comfort zone, become uncertain and clumsy like a swan on land, or a hen in water.

Is it any wonder then that in these circles, form-blindness and form-deafness have spread and are still spreading, that education until recently tended to promote and enhance this deficiency, that a separation of minds has taken place and that outside the circles of the designers themselves, it is only in exceptional cases that individuals with sufficient interest in the quality of form are found who can stand up to the usual abstract routine approach?

The lack of understanding about form goes back to the 19th century, with its distinction between fine architecture and utility construction, its contrasting of utility and beauty, of function and

form, of construction and decoration, of ethics and aesthetics, with – in the background – the contrast between reason and feeling.

Even in the reign of Louis XIV, at the height of the Baroque era when, viewed from today, decoration was in full bloom, as it were, Fénelon argued:

„*II ne faut admettre dans un édifice aucune partie destinée au seul ornement; mais, visant toujours aux belles proportions, on doit tourner en ornement toutes les parties nécessaires a soutenir un édifice*". *("No part intended solely for ornament should be allowed in a building; but, always aiming at beautiful proportions, we must turn into ornament all the parts necessary to support a building) ".*

Our great predecessor Auguste Perret – 'Father Perret' if I may refer to him thus – who conveyed this statement to us, also reports the testimony of Rémy de Gourmont:

"*… brève phrase qui contient en trente mots toute la théorie de l'architecture, peut-être de l'art entier.*"

Indeed. And what a degradation, what a blow, from here to the formula of Sir Gilbert Scott, the official architect of British government buildings in Whitehall, who in turn about 100 years ago summed up the whole vision of his time with the words:

"*architecture is decoration of construction*".

This definition was, for its time, the "phrase qui contient toute la théorie de l'architecture et de l'art entier". And despite a century of hard struggle, complete with heroes of faith and martyrs, we have still not overcome this unfortunate misunderstanding.

Fénelon, who posits the identity of building component and ornament and, on the other hand, Scott, who first separates 'decoration' and 'construction' and then equates the former with total architecture, undoubtedly as being 'exalted', as an expression of 'feeling', versus construction as 'less significant', as an expression of 'reason'.

So, this 'decoration' that is still the 'form' that can be taken care of by a special specialist, alongside the facets of the other specialists, who initially jointly took care of the 'construction'.

We have to be very careful with this type of division and distinction à la Scott.

We may recognise different facets, aspects of things, but they have a certain independent existence only in our minds, not in reality.

It means the schedule of requirements is nothing more than a script, not a self-contained aspect or facet of a building.

The architectonic appearance, on the other hand, is the entire building, named in a certain way.

The construction, referred to differently, is also this same entire building.

'Building', 'architectural appearance', and 'construction' are identical.

Hence the identicity of construction and building, both in Fénelon's formula ('les parties nécessaires a soutenir un édifice'), and Sir Gilbert Scott's ('construction').

This is also why Fénelon forbids adding anything else to the construction to produce the appearance. Hence, finally, a quote from Father Perret himself: “technique, parlée en poète nous conduit en architecture”.

“Parlée en poète …. Parlée ….” The form speaks, should speak. There is a form language. This of course is on everyone’s mind, but only vaguely in the case of many, and its importance is in any case becoming increasingly underestimated.

This actually does seem surprising in a world that reverberates and thunders with the language of form, a language of form that compels one to buy and use, to follow and adhere, a language of coaxing and persuading, flattery and stupefaction, canvassing and temptation.

This ability of the form instantly arouses the serious interest of every client, whether he be a seller of cars or of an ideology, of sweets or a political system. Neither cost nor effort are now too much; no one doubts the ability of the form to convey a message, the reality of the language of form.

The general word language points directly to the languages of words, which can teach us all kinds of things about the languages of other man-made forms, by which I also mean sounds, colours, figures, gestures, movements.

The designer, or provider of forms, whether of words or other symbols, does so out of three urges:

to express *himself*,
to reach out to *others*,
to control *things*.

First of all: the expression, the expression of self, every living being, every child even, demonstrates this urge to externalise inner experiences; joy about discoveries after fear of the unknown, elation about achievement after drift or sorrow for powerlessness. All this initially only in sounds and movements, later also in words. No audience is required for this, but it does have a stimulating effect.

This last remark leads to the use of both words and forms, for contact with others. Every child wants to share and communicate both fears and sorrows, and joys and discoveries. Without language, there is no community.

Third: by giving things a name, by addressing them by that name, they are literally called to order, conscripted into our rationalised worldview.

All this is well known, of course, but let us realise that by giving things a form, we are doing precisely the same thing. Both naming and forming are campaigns into the dangerous territory of the unknown, of the still disordered.

If we fail in this appropriation, we break down with fear; if we succeed too well, we sink into conventionality.

Among word languages, the code, the connection between meaning and form of each sign, is almost exclusively conventional, relying on agreement and learning: 'that which we call a rose by any other name would smell as sweet'. The other forms, on the other hand, appeal directly, and are basically universal – and international.

The word codes also attempt to establish a rigid link between form and meaning of each word; the other signs (at least insofar

as they are not pictures), on the other hand, allow the viewer or listener a subjective freedom of interpretation.

Just as the word relates to the other forms that are also signs, so do the liberal arts to the serving arts. So, now something about those liberal arts.

To begin with: as a child reacts spontaneously, crowing or crying, so does the artist, who is then quite often mistaken for a big child.

But he is very mature and aware – overly aware – of his responsibility for his forms: “man ist um den Preis Künstler” says Nietsche “dass man Das was alle nicht-Künstler “Form” nennen, als “Inhalt”, als “die Sache selbst” empfindet”.

You see: atrophy in the paragraph-adept, hypertrophy in the liberal artist.

In principle, the possible themes of the liberal arts are endlessly diverse, but each era chooses only a very small proportion of them. Today is clearly about individual expression of the individual experiences again, and these experiences are predominantly those of fear, insecurity, and loneliness.

We have discovered that there is a mismatch between the structure of our mind and its aspirations, and what we perceive from reality. This means that a centuries-old intellectual edifice, a familiar and safe home, has collapsed. Are we now homeless for ever? In any case, the old reassuring rationalisations of our worldview no longer function, and new ones have not yet been found. This experience of the absurd provides the main material for our imagery.

Fundamentally, we are still (or again?) as helpless at the edge of the unknown as our distant ancestors were at the edge of the jungle, even though the indeterminacy of that forest has been replaced by that of the expanding universe, even though the threat of nearby tribes and of leprosy and the plague has been replaced by that of the bomb, and even though the evil spirits outside us have been relieved by the frustrations and phobias within us.

The liberal arts try to use an old recipe to evoke something from these fearful domains, for which they have found an idiom. Although it is in principle universal and internationally valid, it cannot, and *must* not, rely on a fixed code bound by any convention. After all, code and convention reassure and provide cover. The arts pay for this with widespread doubt about their right to exist. The addressees are invited to be co-creative; freedom of interpretation is attributed to them, but in reality an obligation of interpretation is imposed on them.

And that is too difficult and uncertain for many, and they return to the pictorial story.

The arts try to evoke and conjure something, and we still have a few powerful magicians (personally, I'm thinking here of Henry Moore, among others) but it's not really serious any longer, not a matter of life and death. In the Kröller-Müller sculpture gallery there is one authentic slit drum somewhere from the South Sea Islands, wiping all modern sculpture off the map.

We cannot go back, we have now recognised the magic itself; we have called it by its proper name and thereby invalidated it – according to its own laws. And that too is a kind of liberation.

The conjuring of the unknown has fallen today to very different groups, to the men of mathematics, natural philosophy, and the

natural sciences. Only if they, on the one hand, could undo their intellectual isolation and, on the other, the artists their emotional specialist isolation, if they could meet and really understand each other, could there perhaps again be a collective invocation of the emptiness that surrounds us, evoked by forms. But we are further away from that kind of understanding than ever.

In the bound arts, we find a rather different situation.

To begin with, intelligibility.

The forms of implements also offer themselves without a code, but they are always in the explanatory context of function and construction; the apparent purpose and recognisable composition of the thing fully explain the why of the form.

And as for the issues to be depicted: the charming power of architecture, based on a *very concretely motivated* appearance of form, is still untouched and the same applies to the urban environment.

These works are still able to fulfil their ancient task as a monument: to both evoke and banish the unbounded. Architecture and urban planning still depict the human situation very clearly, but without pathos: that of an endangered animal trainer.

But then architects and urban planners must continue to play their game honestly and not flirt with the liberal arts which, according to Nietsche, keep form to the exclusion of the actual content, the matter at stake.

Form, construction, function – these are three different ways for us to name the same thing, but of these, only the 'form' points to the real totality. When the thing is called by its name 'form', the designer emerges as the only (but completely) responsible man.

That responsibility obviously makes his personal, subjective attitude impossible to eliminate from his form language. But the expression of this personal source is not an objective. The creator of an implement puts his piece of work in the spotlight – not himself or his personal issues. If it resonates, which is inevitable, then he will be nonetheless. However, he will be rewarded for his restraint. Art, says Jacques Maritain, has for the artist an "étonnant pouvoir d'apaisement; il délivre de l'humain; il établit l'artifex, artiste ou artisan, dans un monde a part, clos, limité, absolu, où il met sa force d'homme et son intelligence d'homme au service d'une chose qu'il fait. Cela est vrai de tout art, l'ennui de vivre et de vouloir s'arrête a la porte de tout atelier." ("surprising power of appeasement; it delivers from the human; it establishes the artifex, artist or craftsman, in a world apart, closed, limited, absolute, where he puts his human strength and his human intelligence in the service of something he does. This is true of all art, the boredom of living and wanting stops at the door of any workshop").

The aim is the obedient justification for the statement, and its portrayal, faithfully, clearly understood and eloquently. This *eloquence* does not come to the form by any means; it requires great talent and also blood, sweat and tears. A legal text can be complete and watertight, and yet completely unreadable. It requires a superior command of language to find, with rejection of all ballast and ornamentation, that precise and nimble formula that incorporates the full identity of form and intent, of sign and meaning.

There is no such demand for identity in the loud commerce-inspired language of form. The things for sale have often not yet acquired their own form at all: they merely display a seductive

mask, hiding behind a prebuilt tempting façade. The honest designer rejects that. He allows things to be themselves, his forms reflect only what is, never mirroring what is not. Flirtation is alien to him. Aesthetics is rooted in ethics, no doubt a recommendation in the Netherlands.

I spoke a moment ago about finding a good, eloquent formula. Well now, design is always about a finding, the finding, and testing of that one form, the right one which, itself singular, nevertheless gives an answer, and the evidently right answer, to many preformulated, often contradictory conditions, questions and demands. The designer is a 'finder' like the trouvères, the troubadours, and also like the Old Germanic finders of law.

But only he who is born to find and has practised the ability actually does so.

Designers talk extensively with each other about their problems and their work and they enjoy doing so. This makes mutual collaboration possible and fruitful, not in the sense that designing would become comparable to playing quatremains, but that a designers' circle can be formed (something entirely different from the heterogeneous specialist-group, referred to elsewhere as a 'team'), one member of which takes on the actual inventive role, while the others provide critical commentary and guidance. If the company is particularly productive, the roles may even be exchanged along the way.

Professor van der Hoek, in his Eindhoven inaugural address as Extraordinary Professor of Mechanical Engineering, paints a very vivid picture of such a creative collaboration of designers of constructions and mechanisms.

From my own experience, I know how fruitful and gratifying this form of teamwork can be among architects, but also especially among urban and other planners, and how the growing scale of our commissions almost imposes this approach on us.

Of course, even in this circle, the individual assigned the role of the inventive finder needs privacy in the actual searching and finding, and of course a very good internal rapport is indispensable – a genuine unit.

They have to grow; ad hoc combinations are pointless.

The Department of Architecture, which I have the honour of joining today, trains students as 'structural engineers': the addition 'or architect' has recently been dropped. The greater diversity of structural engineers made possible in the process is acceptable only if respect for the purity of form remains primary throughout the curriculum. This will allow a slightly more varied composition of the aforementioned designer teams, which could thereby be enriched. In addition, more than hitherto, key positions in the construction world could be filled with individuals with a correct understanding of the hierarchy of values. What I have in mind is the positions of leadership in the contracting industry, in industrialised construction and in the building materials industry, as well as in firms of consultants, government departments and in the large-scale regular clients. It is also possibly a way of developing forces to oppose the increasingly commonplace antipathy towards form. Who knows.

I now come to my peroration, first of all expressing my gratitude to Her Majesty the Queen, for her willingness to appoint me to this post. I am grateful too to you,

Gentlemen Curators, for your confidence in me implicit in your nomination, and you,

Gentlemen Professors, assuring you how much I consider it an honour to be invited into your circle.

Gentlemen Professors in the Department of Architecture, the many, in some cases very old, personal ties that exist between us render it superfluous to express here how delighted I am to be able to be in your midst from now on.

Professor Granpré Molière, your arrival in this Department almost 40 years ago now marked a turning point for it, as well as a turning point in the architectural discussions in this country and in our entire architectural development. You have shown a way and, more importantly, a level.

I thank you for everything this has meant to me. It will not have escaped your notice that today I believe I should give different answers than you to questions you have taught me to ask. You will no doubt accept this, on account of your wisdom, your friendship and your confidence – of which I am very proud.

Dear van Tijen, another great figure in the architecture discourse of the 1920s, my thanks for your trust and friendship. My admiration for the way in which you brought so many young people – including me at the time – out of the shadows, without, incidentally, always receiving the gratitude you were due.

Your example of selfless and utterly consistent dedication of a lifetime to 'architecture and to the human being to whom you consider architecture subordinate' is a beacon for all colleagues, including me.

My dear friends Choisy, Roorda van Eysinga, Smelt and Wittermans, it will not have escaped your notice that much of what I have just said, in particular about the possibilities of an architects' team, rests on the experience of our many years of collaboration. It gives me pleasure to thank you again here in public for all your support and friendship. I have every confidence that in our new formation, our bond can only become even closer. My thanks also go to all other staff, from high to low, in our agency.

Dear De Vries, you have been by my side for many years, in a range of functions. The knowledge of your indomitable help was always a great comfort to me; I hope to be able to count on it for a long time to come.

My dear wife, in our little team-of-two, we quite often swap roles among ourselves; sometimes one is inventive and the other critical, and then vice versa. In the final outcome, the individual contributions are indistinguishable. Not even in this speech.

Except of course in this small personal insertion, which of course is not a statement of charming or even informative language, but merely the expression for its own sake of the great feeling of gratitude for the joint work of our shared life.

Ladies and Gentlemen Students of Architecture, I have not brought a discussion assignment: today should remain an exception. I hope to assist you in your exercises; design can only be learned through practice.

You are in a sense your own instrument; learn to play it to maximum effect, with maximum – spiritual – economy. That is not easy. Creations do not evolve according to an agenda, schedule, or timetable, but through trial and error, surrounded by external chaos. Try to keep your mind floating above that chaos.

Graduate as soon as possible, but otherwise remain a student throughout your life, that is: stay alive, stay nimble, and available to anything that comes your way. Stay curious and open – you will need to be. Very big changes await us in every field. A revolution of the whole way we think is underway. You will have to determine your attitude towards it, and play your role in it. As a structural engineer, you will not be able to invoke the alibi of a specialism. Keep your eyes open and distrust easy, intellectually unworthy, escape routes to myth and mythology.

Stay alive, stay nimble; by willing that, you can do everything to achieve that. Don't get hung up on your achievements, stay prepared to revisit yourself and all your baggage. If necessary, be prepared to let go of certainties from your youth if they prove to be false or of no use: loyalty to an error is a betrayal of the truth.

The ideal designer I outlined a moment ago does not exist in reality, of course; but even if we have to face a rather poor attitude, our wonderful profession still deserves to be given our all.

Beware, however, of the hubris to which my description might tempt you, but which usually only serves to mask insecurity, weakness and lack of ability. Be most humble in your work, regard it as a service – and this is not something meant tritely, but in all seriousness – subordinate yourself to your work, embrace everything that needs to be done, do not consider yourself too good for anything, remember that royal word: who am I that I may do this.

Thank you for your attention.

FIG. 12 Photograph of Samuel van Embden, date unknown (Source: Het Nieuwe Instituut).

List of figures

On the Editors

Carola Hein is Professor and Head, Chair History of Architecture and Urban Planning at TU Delft. She has published widely on topics in contemporary and historical architectural and urban planning – notably in Europe and Japan. Among other major grants, she received a Guggenheim Fellowship to pursue research on the Global Architecture of Oil and an Alexander von Humboldt fellowship to investigate large-scale urban transformation in Hamburg in an international context between 1842 and 2008. Her current research interests include the transmission of architectural and urban ideas along international networks, focusing specifically on port cities and the global architecture of oil. She serves as Editor for the Americas for the journal *Planning Perspectives* and as Asia book review editor for the *Journal of Urban History*. Her books include *The Capital of Europe. Architecture and Urban Planning for the European Union* (2004), *The Routledge Handbook of Planning History* (2018), *Port Cities: Dynamic Landscapes and Global Networks* (2011), *Brussels: Perspectives on a European Capital* (2007), *European Brussels. Whose capital? Whose city?* (2006), *Rebuilding Urban Japan after 1945* (2003), and *Cities, Autonomy and Decentralisation in Japan* (2006), *Hauptstadt Berlin 1957-58* (1991). She has also published numerous articles in peer-reviewed journals, books, and magazines.

Herman van Bergeijk is an architectural historian who studied in the Netherlands (Groningen) and Italy (Venice). After working abroad and teaching at many universities in the United States, Germany, Italy and the Netherlands he obtained his PhD in 1995 with a study of the work of the architect and town planner W.M. Dudok. In 1997 he was appointed at the TU Delft. In 2003 he taught a year at the Bauhausuniversität in Weimar. Until 2019 he was Associate Professor in Architectural History at Delft. He has curated many exhibitions and published extensively on seventeenth- and twentieth-century Dutch and Italian architecture. Recent publications include *Het handschrift van de architect. Schetsen van Nicolaas Lansdorp en tijdgenoten* (together with Michiel Riedijk) (2014), *Aesthetic Economy. Objectivity in Dutch architecture* (2014), *Jan Duiker, bouwkundig ingenieur* (1890-1935) (2016), *Van warm naar koud* (2016), *Het architectonisch werk van A.J. Kropholler. De zwaarte van de materie* (2020). In the moment he is teachimg at the Institute of Technology in Harbin, China. He is an editor of the cultural magazine Rode Haring.

Yvonne van Mil studied architecture in Delft (MSc), where she specialized in the public domain in urban landscapes. After graduating in 2009, she pursued her interests as an (independent) researcher in spatial history and cartographer, working with various heritage and academic institutions. She is currently employed at the Chair History of Architecture and Urban Planning at TU Delft. She specializes in geospatial mapping as a tool for communicating and studying complex spatial landscapes and their developments over time. She worked on the publication of the *Atlas of the Dutch Urban Landscape* (2014), the first overview of urbanization in the Netherlands from a long-term perspective. She is co-author of several books, including *Port City Atlas* (2023), *Driven by Steel* (2018) and *Atlas van het Westland* (2016), and has contributed chapters to the *Atlas van de Schie* (2016). She has also published on the emergence and professionalization of national and regional spatial planning in the Netherlands.

Arnold van der Valk is Professor Emeritus of Spatial Planning. He has taught and conducted research at the University of Amsterdam (1983-1999) and Wageningen University (1999-2017). He specializes in the theory and history of spatial planning, urban agriculture and food policy. He wrote the biography of urban planner Th.K. van Lohuizen, *Het levenswerk van Th.K. van Lohuizen 1890-1956* (1990), and co-authored *Rule and Order; Dutch Planning Doctrine in the Twentieth Century* (1994), the standard work on Dutch spatial planning.

During the 1960s, a rift between urban planners and architects increased as the first group relied on data and other facts, whereas as the second was led by artistic considerations. The two inaugural lectures of Willem Steigenga and Sam van Embden, published in English for the first time in this booklet, are important testimonies to this rift. Steigenga, originally a social geographer, was appointed in 1962 at the University of Amsterdam. He paid little attention to questions of architecture and beauty. In 1964, Van Embden became professor at the Delft Institute of Technology (TU Delft) --where he had studied under the influential Professor Granpré Molière--and dedicated his speech to the importance of form in town planning. The two lectures are preceded by an introduction written by Yvonne van Mil and Arnold van der Valk.

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