Anna Vos
From housing to architecture, from urban design to city
(edited) version in English 2022[1]

Original in Dutch 1986
Van woning tot architectuur, van stedebouw tot stad. In: Edhoffer, L. De Mare, H. en Vos, A., Vrouwen en de stad. [Women and the city] Deel 1. pp.121-175. February 1986. Delft University of Technology, Faculty of Architecture.

How would we characterize today's moment? (1) Amsterdam Houthaven (arch. Neelu Boparai) 2022 © Anna Vos

---

[1] Compared to the original text, the references have been arranged in a different way. Additional explanations or comments have been added in the notes. Illustrations have been adapted.

Table of contents

Introduction: the moment of reading, writing and reading

The debates within the architectural and urban design discipline concerning its task and commitment - in history and now - show that there are quite a few different views on the question of what can be included in the field of architecture and urban design.
But apart from the fact that within what we now call the architectural discipline, opinions differ, it turns out that 'architecture' can mean something different to many people, from residents to women, from architects to builders, from public housing managers to politicians. The complexity of architecture is that it relates both to spatial structures and to social processes and practices, through which spatial structures are created and which take place within them.
To what extent can we speak of an architectural discipline that has its own history or a set of architectural practices that possesses a degree of 'uniqueness' that distinguishes it from, for example, political, legal, social practices related to spatial structures? Can we speak of an architectural discipline, which resolves issues set outside itself without undergoing changes itself and which is therefore fundamentally 'the same' over time, or can we speak of an architectural discipline, which develops new means, methods, models with the issues it poses and which therefore undergoes fundamental changes over time?

In this article I want to try to trace in history how an architectural task of mass housing has come about. In other words, I want to examine how the task of the architectural discipline was formulated, by whom in what kind of positions with what kind of references, and what transformations and continuities occurred in it. With this, I want to make a start with the elaboration of the problem statement of Women's Studies in Architecture, as outlined in the first article in this publication.[2] That is, to question both 'man' (woman) and 'architecture' as cultural phenomena rather than falling into the unambiguity of either a positive (causal) relationship or the denial of any connection between human and architecture.

Architectural thinking itself needs to be analyzed. Architectural discourse has a history of its own, which has taken place partly in relation to other discourses and social developments, but which can by no means be seen as derived from other discourses.
How is the architectural discourse constructed, in a certain demarcated place and time, which are the components that make up the 'architectural' at some point, which are the questions that need to be asked at the moment when 'mere architecture' remains after discarding all ideological ballast (Tafuri 1978 [1973]). For what is 'mere architecture'? Architecture has a certain autonomy and at the same time is bound up in a cultural arrangement. This means that it cannot simply be reduced to one element.
In the architectural discourse, a number of things are ordered in a specific way depending on place and time, into a coherent or rather incoherent whole, such as the aesthetic, the formal, the economic, the political, the social, the programmatic, the technical, the 'fashionable'. At different times, both the weight and content of the various components and their mutual connections and influences, which converge in the architectural discourse, will differ. Or possibly an element will be excluded or newly 'invented'.

---

[2] The first text from the publication, referred to here, has the eponymous title Women and the City (De Mare H., Vos A. and Edhoffer L. 1986). Available at https://annavos.nl/ook-vrouwen and at Academia.edu.

The point now is not to make a kind of reductive analysis, in the sense of an analysis of the individual elements, which appear at first sight, and which together would construct the whole of the architectural. In fact, such an approach always leads to a one-dimensional description of architecture or the architectural discipline from one single point of view, for example, a psychological or a socio-economic point of view. On the contrary, the issue is precisely to start with the architectural itself, in its complexity, to write a history of what eludes direct observation. In this sense, we must try to trace the uniqueness of architecture, without standardizing architecture from other discourses, but also without neglecting its specific connection to a culture.

So said, so done?
Easier said than done, because there are still some problems.
First, regarding words and things. Architectural discourse includes both words - plan descriptions, statements of intent, architects' narratives, handbooks - and things - plans, drawings, buildings - the discursive and non-discursive elements, respectively. Their mutual relationship is obviously ambiguous. The question is whether and how in the history of the architectural the discursive and non-discursive elements each have their own history, and to what extent they have a history together.
In this text, for the time being, the emphasis is on the words, on the reading of textual material. Plans are indeed discussed, but only in connection with the texts. In order to be able to make statements about the mutual relationship of texts to plans, in fact the same analysis of plans would have to be carried out, in addition to the analysis of text material carried out here.[3]
Secondly, when the aim is to analyze architectural discourse, it is strange in itself to choose and separate a single 'part', i.e. housing. Such a distinction, taken for granted, should after all be questioned.
The same applies, in fact, to the 'periodization,' which suggests a historical chronology and logic. By contrast, the individual moments I distinguish should be read simultaneously, as it were.
The text below should therefore be seen much more as a first edit of the material to be analyzed, as a working text.

The article is divided into six 'moments.' I read some exemplary texts concerning housing in the Netherlands. I will initially let the different moments 'speak for themselves'.
Now, if I want to examine, as I stated, 'how the task of the architectural discipline is formulated, by whom in what kind of positions with what kind of references, and what transformations and continuities occur in it,' a framework is needed to be able to read the moments - each speaking for itself, in its own terms - simultaneously:

1. Subjects- who is speaking (in what position)
2. Objects- what is being talked about (what has been formulated)
3. Concepts- in what terms is it talked about (references)
4. Strategy- with what strategic goal is it spoken of.

The fourth aspect can be seen as the specific connection of the first three aspects.

---

[3] Anno 2022, as the 1986 text is translated and made digitally accessible, I want to correct myself and add that not only texts and plans, but also the built artifacts - the material of the city - should be included in the analysis.

As a fifth aspect, the level of the plan must be added. But it remains to be seen for the time being how this relates to the other aspects.

The combination of four (five) aspects makes up what the architectural discourse is at a certain point. Each moment is therefore summarized schematically on the four aspects after the lecture.

Only after a series of these 'architectural discourses' or moments have been described, then the transformations, similarities and continuities can be described. The commentary provides an initial impetus for this.

How would we characterize today's moment? (2) Amsterdam Houthaven (arch. M3H) 2022 © Anna Vos

Moment 1: The home for the worker and his family

Many histories of social housing begin in 1901, when the Housing Act came into force. The well-known 'industrial revolution', in the Netherlands reinforced by the relatively high poverty and backwardness in which the proletariat found itself, is listed as the main cause of the unhealthy, chaotic and untenable conditions especially in the cities (Roland Holst 1902). The Housing Act is the instrument with which this pitiful situation can be put to an end, because it provides the legal and financial means to build good and cheap workers' housing. Social housing was born. Thus reads the mainstream historiography, after which the story of 'social housing' can be told.

This term is used without any reservation to refer to the total housing production that has come about since then within the framework of the Housing Act. But practices around 1900 and today are very different. Both concepts, social and housing, have undergone a change in meaning. The concept of social around 1900 indicates the problem of poverty and the concern of one group with the problems of another group. Nowadays it refers to a certain degree of development (of the welfare state), in which a form of solidarity appeals equally to every citizen. The concept of housing meanwhile is much more specified and implies the whole set of regulations in housing (with regard to standards, costs, etc.).

Amsterdam Hoogte Kadijk 1828 'Sibbelwoningen', photo ca 1982 Stadsarchief Amsterdam

Some histories, though not of 'social housing' but of 'public housing', go back to the middle of the 19th century, when the Verslag aan den Koning [*Report to the King*] appeared, a report by the Koninklijk Instituut Van Ingenieurs (KIVI) [Royal Institute of Engineers], as an

initial inventory of the problems of 'the requirements and design of workers' housing' (Report to the King 1855; hereafter referred to as the KIVI Report).[4]
The Housing Act was of course preceded by quite a few discussions about the nature of the problems and the way in which they could be tackled effectively.

> 'Limited space, often poorly lit, imperfectly protected from the influences of the atmosphere, in damp places and in corridors and alleys, not provided with the bare necessities, without a supply of abundant water, without the removal of the most hideous impurities, the house of the workman is often a place of terror for the more civilized, where uncleanness sometimes rises to the top, where the atmosphere is polluted by all that is piled up and carried on there, where vice finds its cradle and where the foci of disease arise, whose influence spreads far and wide, to affect all classes and to spread the scourge of destruction as far as the homes of the more civilized.
> (…)
> (…) How can a workman, who has to spend the hours of his rest in a cave full of smoke and garbage, under the movements of his children, find pleasure in spending those hours in such a place?
> (…)
> How will the housewife, (…), keep the house clean, if she has only one room available, or if her entire residence is deprived of such aids, the possession of which is indispensable to the creation and maintenance of order in her surroundings.
> (…)
> And what consequences must it have for the moral life of young people to live in dwellings where there is no opportunity to separate the individuals of different sexes, but where everyone lives and moves mixed together?' (Verslag aan den Koning 1855: 3-4).

Thus begins the KIVI report indicating 'that we are well aware of the importance of the task assigned to us', namely to inform the king about the requirements and design of workers' housing (Idem: 4). The report expresses an opinion about the house 'for the worker and his family' and about infrastructural measures of a civil technical nature, such as water supply, the removal of dirt, ventilation and paving. The importance of improving the housing of the working class extends beyond the provision of housing per se, namely to the improvement of physical and mental health through cleanliness, morality, hygiene. That is what carries the weight of the task assigned to the KIVI committee.
The report refers to similar attempts abroad to provide housing for the working class with the aim of improving their physical and mental condition. What is emphasized a number of times is, that the families should be separated from each other in their own quarters, with their own entrance if possible,

> 'so that all intercourse with the inmates had been eliminated, something which is a prerequisite for moral life' (Idem: 5).

---

[4] In Amsterdam as early as 1828 the first social housing was built at the Hoogte Kadijk: the 'Sibbelwoningen' [Sibbel-dwellings], commissioned by Municipality and National government to provide dwellings for people who had to be relocated because of the construction of the National Entrepot at the Nieuwe Rapenburgerstraat (now Laagte Kadijk). Among them, many employees of the adjacent brewery De Gekroonde Valk (addition by author 2022). Sibbel is the name of the owner in nineteensixties.

With an Amsterdam commission, the KIVI report states that it is impossible to make common work or dining rooms as was done abroad (Idem: 6). In contrast, Mühlhausen in France in particular is praised as an example where additional conditions were imposed on the occupancy of individual family homes.

Amsterdam Planciusstraat - Houtmanstraat 1857, Stadsarchief Amsterdam / W. Hekking

The workers' home, for which the 'requirements and furnishings' are described, is intended for a specific segment of the working population, namely those who perform their labor outside the home and thus only need space to

'live and thus need no more space than (...) good accommodations for day and night for themselves and theirs' (Ibid.).

The second limitation applies that KIVI 'has in view only those who live with their families' (Ibid.).

'(...) The dwellings of the working classes may be *general* or *special*; those intended for *individuals*, or those fitted out for occupation by *families*. Both are equally worthy of consideration and in London, where both classes have been cared for, the usefulness of such establishments, where single men or women find a place, is not in the least praised. (...), but we did not think that the establishment of such houses was in accordance with Your Majesty's intentions. Even less did we think we could present a plan of such buildings to Your Majesty, because the nature and arrangement of the building itself cannot be doubted; the plan would come down to the implementation of well-known principles' (Ibid.; italics in original).

The committee then goes on to list other categories, such as the elderly, children, the destitute, and the indigent, which it has otherwise left out of its considerations, stating that it is limiting itself

> 'to what expressed our charge, to the dwellings of the workman and his family, to a family residence thus of the workman, who must earn his bread with his hands for himself and his own'(Ibid.).

In words, a recipe is then given, as it were, of a working-class house, which meets the requirements of

> 'a *healthy life*, of *prosperity*, of *morality of the workers and of their families*'(Idem: 5; italics in original).
> 'For each family we consider necessary: a living room, (...) furthermore a bedroom for husband and wife and two separate bedrooms for children of both sexes. Finally a kitchen with pump and sink and a place to store household and other items' (Idem: 10).

Preferably, the house had to be free standing, on a street of considerable width and with an open space behind it, without trees, oriented north-south, to ensure sunlight and ventilation as much as possible.

In the second part of the report, the various committee members, either from their own experience as (city) architects or from the experiences of third parties, a physician, a board member of a housing association, give a description of the situation in a number of cities. The third section contains a number of plans drawn up by committee members and third parties.

While the second part describes the 'condition of workers' housing' and the cautious attempts of associations and individuals to improve it, the first and third parts aim to make proposals for good workers' housing. The relationship between the two parts, respectively programmatic-technical and plan-technical, remains undiscussed in the report.

In contrast to the unambiguousness of the words in the first section, in the third section there appears to be a multitude of plan concepts. Apparently, at that point, it is not clear what a plan for a house/group of houses should look like.

It had already been noted in the first section that local conditions might prevent the realization of the proposed program; for example, the costliness of the land might force the sacrifice of building in several floors. From the explanation of one of the plans, for Arnhem, we might conclude that the intention was to rework the design in accordance with the Report. In the end, none of the plans meet the requirements of the first part in a programmatic sense. Only the plan for The Hague shows four-room dwellings, the designs for Rotterdam and Amsterdam differentiate by dwelling size. In Rotterdam the majority of the dwellings are three-room dwellings, with a few larger dwellings at the corners. In Amsterdam, a distinction is made between one-, two-, and three-room dwellings for three classes of workers respectively. All plans link houses together, ranging from two houses per block (Arnhem) to two- or three-story rows. Rose's plan for Rotterdam is the only one that also includes an urban proposal, in which four blocks, with entrances to the dwellings on both sides, are grouped around a site, on which a fifth building is planned for a number of communal facilities, such as a kindergarten, kitchen and dining room, bakery and infirmary, intended in part particularly for single people.

Despite the differences in size, there is a similarity between the plans in terms of floor plan, insofar as what is designated as the living room is, in most cases, also the room to which any other rooms are connected.

The biggest differences between the plans can be found in the linking and stacking of dwellings and thus in their accessibility, varying from a separate staircase for each apartment (The Hague) to one public staircase, around which mirrored dwellings are built (Amsterdam), to a gallery and a central corridor (Rotterdam). The plans are clearly not a spatial 'translation' of the program for the dwelling set out in words in the first section, but can be read as commentary, either from the real possibilities, as the explanatory note to the plan for Amsterdam explicitly states, or from design-technical possibilities, which the whole of the plans together demonstrate.

The publicized plans each solve in a specific way the general issues mentioned in the first part, i.e. the issue of morality, which requires the separation of families, the issue of hygiene, which requires technical facilities regarding water supply and waste water disposal, the issue of health, which requires light and ventilation. The plans offer various spatial solutions for this, which meet the requirements to a greater or lesser extent.

With the issue of the 'requirements and furnishing' of the workers' home, the issue of the moral elevation of the working class is raised in the same breath.

But also, the other way around, in numerous places, such as in the health commissions working in the various cities, at the congresses on the Poor, from another point of view, that of health, poverty, connections are made with housing. For example, the Congress on the Poor asks itself what the causes of impoverishment and poverty are and what measures can counteract both (Cohen and de Sitter 1854).

One of the four causes would be the '*Lack of precaution when marriages are contracted by the less wealthy*' (Idem: 40; italics in original). In this context, the dwelling also comes up.

In the discussion, mention is made of the existence of a large group of unmarried workers, who cannot afford a family, which the speakers consider to be just as well. The provision of housing is seen by one of the attendees as an incentive to enter into such thoughtless marriages, which would only increase the number of people in need. One should only improve the existing housing and certainly not expand the housing stock (Idem: 43).

Against this, it is argued that good housing is a means of uplifting and morally developing the lower class. Thus, the speaker said, in 1843, homes had already been built for the poor and the destitute:

> 'These houses, far from having an immoral influence, on the contrary have the purpose of promoting morality and development among the indigent' (Idem: 46).

The first speaker then mentions the existence of another type of housing, such as those built in England, which are a guarantee even more to prevent workers from entering into imprudent marriages.

> 'In London now there are dwellings for unmarried workers: there they find a healthy and nutritious lunch, a room with fire and light, where books and newspapers offer them pleasant and instructive relaxation, where they can obtain refreshments, but no liquor, and all that at a reasonable price. If one would make the unmarried life bearable, even pleasant, the worker would feel less need to marry' (Idem: 47).

The congress ultimately concludes that such a means, the choice to provide or not provide housing, should not be used for the stated problem of stopping imprudent marriages, but one should be limited to moral means.

Despite the fact that there was widespread knowledge of the housing provisions for unmarried people in England - the compilers of the KIVI report were also familiar with the book by Henry Roberts (1850), which includes model dwellings for both families and for unmarried men and women - in the Netherlands attention has been focused entirely on the provision of housing for families.

In addition to the KIVI, interference with the problem of housing came from housing associations, workers, industrialists, and private individuals. At the same time that the KIVI report was published, semi-philanthropic housing associations were being set up in numerous cities. These were mainly initiatives of the rising middle class - wholesalers, bankers - often from circles of the Reformation or the 'Maatschappij tot Nut van 't Algemeen' [Society for the Public Benefit] which combined charity with self-interest; self-interest both from the point of view of public health and from a financial point of view.

A little later, the labor movement was more and more organized and established itself cooperative associations to acquire owner-occupied houses.

Thirdly, from the industrial side, workers' houses are erected, as by Salomonsen in Nijverdal (1852), by Regout in Maastricht (1854) and by Van Marken in Delft (Agnetapark, 1889).

The largest number of houses is erected by private builders: the 'revolutiebouw' [revolution building]. Here, on the narrow deep plots issued by the municipalities, the type of back-to-back dwelling appears mostly, with alcoves, four stories high. In all cases, these were homes for families, albeit in different forms. In addition to the four-story blocks of back-to-back dwellings, low-rise houses are built, also in Amsterdam, often by the cooperative workers' associations. In an overview of workers' housing realized up to 1890, the range of types forms a sample card of possibilities, from stacked back-to-back dwellings to low-rise rowhousing to freestanding blocks of four dwellings (Van Hasselt and Verschoor 1890).

In the first three categories of housing construction (by semi-philanthropic associations, by cooperative workers associations and by industrialists), architects were involved, such as H. Hana, P.J. Hamer and J.H. Leliman, who built for the 'Vereeniging ten behoeve der arbeidersklasse' [Association for the benefit of the working class] and for Salerno (Amsterdam). But the larger amount of housing was built by private builders and came about without the involvement of architects.

1981

Amsterdam Planciusstraat - Houtmanstraat 1856, architect P.J. Hamer, Stadsarchief Amsterdam

In general, housing at that time was still a 'strange' problem for architects, and in fact almost entirely in the hands of building contractors. Typical of this is the number of entries received for the competition held in 1851 by the 'Maatschappij ter bevordering der Bouwkunst' [Society for the Advancement of Architecture] 'for a residential building for artisans and the disadvantaged', namely, only one. It was not awarded a prize, however, because the plan bore too much resemblance to Roberts' model house, which had been exhibited in London at full size (Schade 1981: 51 note 74).

The competition held in 1852 by the 'Vereniging ten behoeve der Arbeidersklasse' attracted four entries (Idem: 29). The plan had to provide for

> 'sixty dwellings for "craftsmen and disadvantaged", some of which "consisted of one or more rooms, with or without a separate kitchen, with one or more bedrooms and also without bedrooms, according to the needs of the various families which were envisaged as future residents'; (...)' (Ibid.).

In response to the design task, numerous questions were received from architects, revealing a great unfamiliarity with the problem posed, which prompted the Vereniging to submit some sample plans for inspection in a bookstore. A letter to one of the questioners stated that the competition was

> '" set as indeterminate as possible in order to leave the lords building engineers the most complete freedom of conception"'

and thus, bring about an Amsterdam solution

 '"as was done by Roberts for London and by Hoffman for Berlin"'(Idem: 42 note 61).

Leliman's plan, which provides two blocks of stacked housing on a public courtyard, receives an award, A.J. Sevenhuysen's plan an honorable mention.
The number of architects involved with workers' housing was still very small. In the sixties, the first articles about workers' housing by architects appear in the magazine of the 'Maatschappij ter bevordering der Bouwkunst' 'Bouwkundige Bijdragen' [Architectural Contributions].

Amsterdam Planciusstraat - Houtmanstraat 1981, Stadsarchief Amsterdam / Han van Gool

The KIVI report marks the time when, for the first time, architects were given the task of designing workers' housing.

But it is not only the dwelling and the way of life of the workers, which are objects of attention. The already mentioned issues of water supply, waste disposal, light and air intake, etc., imply that the problem of workers' housing cannot be considered at the level of the single dwelling or the single block, but extends to the level of the arrangement of the city. When the second part of the KIVI report describes 'the condition of workers' dwellings," the reporters speak of the accumulations of caves along narrow corridors and alleys, without light and air circulation, full of water and garbage, source of epidemics.
The interference of the semi-philanthropic housing associations in Amsterdam focused on the one hand on such neighborhoods, such as Jordaan and Eilanden, where the construction of new workers' housing was accompanied by a kind of urban renewal, in which the

demolition of the buildings on the 'corridors' perpendicular to the streets, the filling in of canals, and the construction of sewers and water pipes were provided.

On the other hand, new housing is built on and outside the former city walls, according to Van Niftrik's city plan (for example, Marnixstraat), later according to Kalff's plan. These city plans, and for example also Rose's plan for Rotterdam, show that the problem of the arrangement of the city - until then a form problem - takes on a new dimension with the infrastructural measures deemed necessary and with the need to acquire new building sites outside the walls to expand the existing city within the ramparts.

Rose's plan for Rotterdam is in fact based on technical proposals regarding water management, more than on a form concept of the city.

Van Niftrik's theoretical plan for Amsterdam, which eliminated everything that did not fit into the design, soon had to give way to Kalff's more pragmatic plan, which did take into account pre-existing elements, ownership relationships, etc.

What remains is the question of how formal design images relate to other plan-constituting components.

Amsterdam Planciusstraat - Houtmanstraat 2006, Stadsarchief Amsterdam / Martin Alberts

Summary Moment 1: The home for the worker and his family

Subjects	Koninklijk Instituut Voor Ingenieurs (KIVI)
	The King
	Health Committees
	Organizations on the Poor
	Society for the Public Benefit
	Semi-philanthropic housing associations
	Individual benefactors
	Labor Movement
	Private building contractors
	Industrialists
	Society for the Advancement of Architecture
	Architects
Objects	Requirements and furnishing of workers' dwellings
	The workman and his family: workman - housewife - youth
	Not: individuals/singles/unmarried workers who cannot afford a family
	The individual dwelling
	Water supply
	Drainage of dirt
	Fresh air
	Paving
	Not: residential building with common work or dining rooms
	The lower class
Concepts	Impurity - cleanliness
	Vice - morality
	Diseases - hygiene - health
	Dwelling
	Living room - bedroom - kitchen
	Peace - order - prosperity - healthy life
	Impoverishment - poverty
Strategy	Restoring - keeping clean - creating and maintaining order
	Separating individuals of different sexes
	No communities with ancillary residents
	Isolating families
	Reducing impoverishment and poverty
	A good home is a means of lifting the lower class and developing them morally
	Mental and physical health
Plan	Differentiation by dwelling class
	Individual rooms in the house
	Technical provisions for ventilation in the house
	Accessibility of dwellings
	Stacking and concatenating dwellings
	Technical facilities for water and sewage
	Urban Renovation
	Urban Expansion

Amsterdam Dirk Hartoghstraat 1958, Stadsarchief Amsterdam / M.A. (Rinus) Knopper


Amsterdam Dirk Hartoghstraat 2022 © Anna Vos

Moment 2: The collective cityscape

In the memorial book The Housing Act 1902-1929, a chapter is devoted to the relationship between architecture and the Housing Act. The author first notes that public housing was a new problem for architects

> 'that could only be solved by those who could indeed see in public housing a problem for architects, a task that could elevate the profession of architects to a social task of wider and deeper significance than hitherto' (Casciato, Panzini and Polano (eds.) 1980: 106).[5]

He calls Van der Pek the first, before Berlage and De Bazel, who as an architect studied the issue of public housing. The first houses to be built under the Housing Act were designed by Van der Pek for the Rochdale cooperative on Van Beuningenstraat in Amsterdam (1909). On each floor only one dwelling is accessed; separate bedrooms are provided in the house.
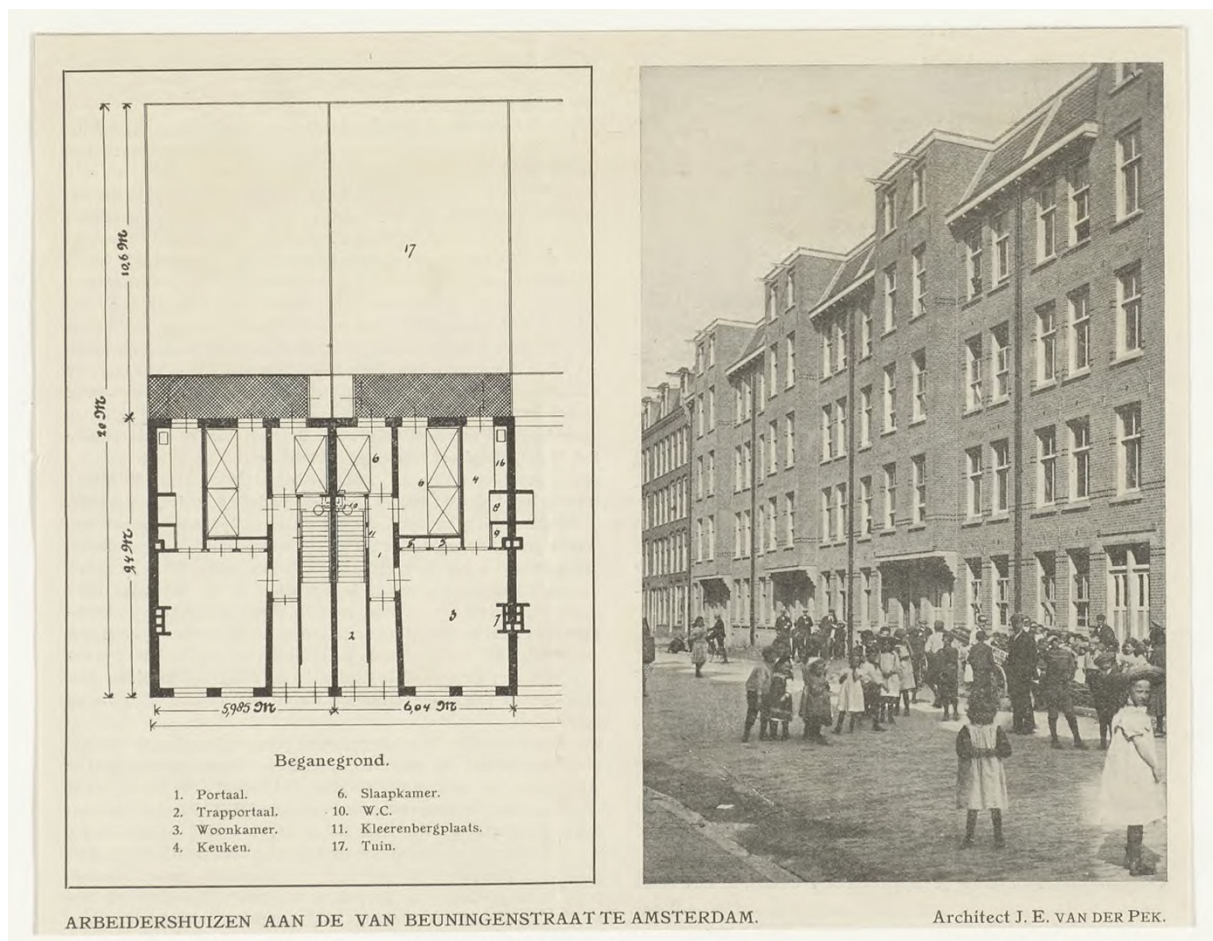
Amsterdam Van Beuningenstraat 1909, Stadsarchief Amsterdam / J.E. van der Pek

Van der Pek's study of the requirements 'which must be made on every, even the most modest, dwelling,' he summarizes:

---

[5] The spelling of the reprint in the 1980 volume Architecture and Public Housing, which is retained here and in subsequent citations, is modernized, and thus does not conform to the original text (nor does it conform to the current spelling).

1. no living quarters without a direct connection to the outside air, so total abolition of alcoves;
2. separation of living area and kitchen, that is, abolition of the live-in kitchen (...);
3. permeability of dwellings: each dwelling is exposed to the outside air both in the front and in the back; this means the abolition of the back to back dwellings;
4. each dwelling is 'self-contained', that is, accessible from a common stairwell, separated from it by a single access door, and connection to all rooms is made without passing through the common stairwell;
5. each dwelling has its own private area;
6. separation of living and sleeping quarters, abolition of bedsteads' (Ibid.).

In addition to the dwelling as a specific architectural problem, according to the author, a new awareness is breaking through with regard to urban design:

'The twentieth century saw the awakening of the understanding of urban design, of the notion that the individual building is not the ultimate goal of architecture. One could draw a parallel here with the social sciences, which have discovered the masses alongside the individuals; in the same way architecture has discovered the city alongside the individual building, that is, the whole in which the individual work has to arrange itself' (Ibid.).

Carol Schade

Jan Ernst 1865-1919 van der Pek

Pionier van de volkshuisvesting

BONAS

2010

As an example he praises the architecture of the Amsterdam School. According to him, its importance lies in the fact that it posed the problem of how the various small units could be inserted into the whole of the building block. The merit of the architects of the Amsterdam School is that they found 'the aesthetic expression of the concept of public housing as an accumulation and concatenation of equal or corresponding housing elements' (Idem: 107).

Although the problem of the block is posed by the Amsterdam School architects, the relationship of the units to the whole of the block is something that is only problematized at the level of the block, the dwellings are subordinate to it. The emphasis is on the appearance of the block, which exudes individuality and unity within itself and/or with the opposite block. The dwellings behind the facades lead a relatively independent life, that is, they do not determine the way in which the block is designed.

Most plans by Amsterdam School architects came about within Berlage's plan for Amsterdam Zuid. There the emphasis is on the building block as the material with which the urban space is made, on the arrangement of the blocks in relation to each other. Within this framework, architects, commissioned by associations and individuals, could work to 'fill in' and 'dress up' the blocks; private building contractors were obliged to hire architects to design the facades, so that a certain unity would be guaranteed.

Thus, we see that there are three problems, which are addressed relatively independently: the problem of the dwelling, of the block, of the urban space.
The first problem seems to be considered almost solved at the time that in 1918 a housing congress is devoted to the subject of standardization. The concept of standardization comes to prominence in architectural circles when, after the war, the all too limited housing production only becomes more noticeable.

Amsterdam Vrijheidslaan 1923, Stadsarchief Amsterdam

The preliminary advice that Van der Waerden gives to the congress, reasoning from the prevailing housing shortage and the need to build houses in mass, is a plea for the introduction (from above) of a limited number of standardized dwelling types (Van der Waerden 1918). Precisely the minimal possibilities that exist for the workers' home mean that every architect always makes only a variation on the same basic pattern. This is not just wasted energy; in particular, the mutually minor deviations stand in the way of rapid, efficient production. What really is the task of architects, according to Van der Waerden, is the design of urban space, which is/should be different for each city/village. For this one could make use of the proposed 'standard types' of dwellings.

The reactions to his advice are colored by the fear of loss of freedom, both on the part of architects, who feel that their artistic professional sphere will be affected - and in this sense one might say that architects apparently have appropriated the problem of public housing -, and on the part of workers, who feel that they are being treated like herd animals, according to Berlage. The monotony that Van der Waerden's proposal would entail is an attack on the personality of architects and residents. He is accused of not proposing something new, 'a new form of architecture, a new building order'' but an emergency solution (Berlage 1918: 25-27).
Incidentally, it is Van der Waerden himself who provokes such a reaction, when he states that the housing shortage alone justifies the rigor of his proposal, for which he more or less apologizes. Later, 'the individual view' could come up again, each case could be resolved again on its own (Van der Waerden 1918: 11).

Berlage supported Van der Waerden in his view that the home is sufficiently well known and that the real problem to be solved by architects lies in the design of urban space. Yet the method used in Plan Zuid, which proposed an urban design arrangement of blocks that in themselves were 'empty' and could still be filled in and dressed up, was, as it were, reversed. Moreover, Berlage shows several times in his text that a problem also lies at the level of the arrangement of the individual dwellings into a whole, the block.

Berlage responds to the objections raised in response to Van der Waerden's preliminary advice by saying that the issue of standardization is by no means new.

> 'And, in particular, the history of urban design shows that, as far as the street plan itself is concerned, an effort was made from the earliest times to achieve regularity. And that was always the case when a plan was determined beforehand' (Berlage 1918: 28).

He cites as examples the 'Roman colonial constructions' and as a highlight the Renaissance city (Idem: 29).

> 'So in general, (...), there is an effort to regulate, to make regular, i.e., to normalize the street plan. And with a street plan, building is closely related. Plan and buildings belong together, are in a certain sense presupposed in each other' (Idem: 30).

In such regular city plans, Berlage said, a few of the same dwelling types were mostly used. According to him, this had a social significance in the sense that the equality of the dwellings

expressed the social equality of the residents. The Rue de Rivoli, Regentstreet, the Dutch 'hofjes' [courts] form a special quality precisely because of their regularity and repetition.

Amsterdam South ca 1981, Stadsarchief Amsterdam / Archief Dienst Ruimtelijke Ordening

'It is, after all, nothing else than the orderly rhythms, precisely the concatenation of the same unity, on which in essence the entire ornament rests, the germ of every style, and ultimately the entire architecture' (Idem: 34).

That very regularity, which brings about a certain unity, is what was lost in the 19th century. In its place a way of building emerged that is an expression of bourgeois individualism, in the absence of a 'social idea of unity'. Architecture, on the other hand, should achieve 'a general culture' (Idem: 35-36).

'Then we would realize as a matter of course that the block of houses will be its own aesthetic necessity when it comes to finding the architectural form of the housing complex with the same dwelling type' (Idem: 36).

In America they are working on this and have come up with the solution of the 'family warehouse', which is meant to be anything but disapproving, in which a block of dwellings is also equipped with elevators, communal kitchen, etc., Berlage writes,

'to restrict all the hassle of meeting material needs as much as possible. This means that family life will take on a completely different form and will no longer focus on the midday

meal prepared by the housewife. And wouldn't such a way of life become a necessity for the working class even sooner?' (Idem: 37).

He uses this example to emphasize that it is the development of society itself that has raised a new task, a new issue. He ignores the possible substantive consequences for the dwelling type in the American example and, assuming that the Dutch dwelling type has crystallized, he formulates as a problem:

'(...) the architectural solution of the block of houses in general, i.e. of the composition of one building whole of stacked, or concatenated, dwellings of the same type' (Idem: 37-38).

So it is not about the single house, but about the grouping of dwellings:

'The rhythmic concatenation of dwellings, the block front forms the spatial element for contemporary urban architecture' (Idem: 38-39).

The units of the blocks can be used to design the urban space:

'For it is by the grouping, concatenation and stacking of the same units, comparable to the design of a three-dimensional cubist ornament. Street, square and building are presupposed in each other in each urbanist design. Urbanism is to create space with housing material' (Idem: 45).

This is now the real issue facing the architect.
The basic element, the dwelling, is known:

'(...) with the workers' dwelling, at least as far as its arrangement is concerned, (can) already (...) be pointed to a certain type, to a certain unity concerning its concept' (Idem: 39).

It is precisely from this that a certain concept of culture emerges, and this presupposes a certain unity in the way it is expressed, according to Berlage. He was therefore surprised by the resistance to standardization on the part of the workers:

'After all, when one acquires a good home, technically as well as practically, (...) it is by no means unworthy of a person to live in the same house as kindred spirits. (...) Or has the worker finally become attached to the individual dwelling after all? (…) But wouldn't there be a reason for them to accept the peaceful appearance of the collective cityscape with enthusiasm, in contrast to the individualistic cityscape that has become unbearable, which after all is the expression of the class that opposes them? (...)
Or is the worker indeed afraid of the loss of his personality, if he is, as for the dwelling, the equal of others in his class? But surely being truly human does not depend on the dwelling one inhabits? Or is it true that the home makes the human?' (Idem: 40-42).

Despite Van der Pek's package of requirements, the workers' home is not yet 'ready' as Van der Waerden and Berlage suggest. The municipal building regulations, which the Housing Act

obliged the municipalities to comply with, differed greatly from one another and, moreover, spoke more about the manner of occupation than about requirements to be met by the dwelling.

For example, the 'Manual to draft an ordinance as meant in art. 1 of the housing act' [Leidraad bij het samenstellen van een verordening als bedoeld in art. 1 der woningwet], drawn up by private individuals and integrally adopted by a number of municipalities, devotes a number of articles to the number of sleeping places to be realized according to the composition of the household (Van Gijn and Schelling 1902). In general, it should be avoided that too many people are in the same sleeping accommodation, but one bed/bedstead/sleeping accommodation for every three people will suffice. However, these may not be of different sexes unless they are married couples, parents or grandparents with their children and grandchildren or persons under the age of eight.

Statements of the same kind are formulated about the use of kitchen and living room in some publications on workers' housing. A small kitchen would stimulate the use of the living room as such and counteract the use of the living room as a showroom or as a room to rent out to a boarder, who would disrupt family life. In this view, the live-in kitchen is taboo, as Van der Pek also stated. Others believe that in addition to the kitchen and the living room, a 'beautiful room' should belong to the home, where, in accordance with the pride of the housewife, it can always be neat (Wentink 1915). The argument of the possible disruption of family life by a live-in boarder is diametrically opposed to the argument of encouraging housewife pride.

It was not until 1919 that the Ministry issued a circular setting out requirements for dwellings in order to qualify for government support. The dwelling may contain up to five rooms including the kitchen, without alcoves, with a height of 2.70 m. for the living room and 2.40 m. for the bedrooms. The circular is accompanied by the 50 types album (Van Boven: 1919). Again, as with Van der Waerden's proposal, which contained only nine standard types, the criticism is made that the exemplary function attributed to the album would lead to slavish imitation and flattening. From this idea of the literal repetition of examples, it could be concluded that there is apparently no general idea of a working-class house, neither in a spatial nor in a programmatic sense.

1991

Amsterdam Minervalaan 1971, Stadsarchief Amsterdam / J.M. Arsath Ro'is

The relationship of house to block is posed as a coherent problem by architect Oud. More or less in line with Berlage, it is about the grouping, the concatenation and stacking of equal dwelling units. But unlike Berlage and the Amsterdam School, Oud is not satisfied with the supposedly familiar dwelling, nor with the formal way of arranging the block, which in the Amsterdam School is relatively separate from the material that is arranged, the dwellings. Oud is concerned with the design of the block as an addition of housing units, for which standard components or even standard types can be used. The dwelling, however, does have an organizing function. The architect must design such elements, the dwelling, the block, as units to be reproduced. However, it is not about the recognizability, the visibility of these elements in the whole, but about exploring the possibilities of how the elements can be connected in such a way that the greater unity of the block is created. In the preliminary study for Spangen, for example, by reversing the dwelling type, the facade across the individual elements can form a larger unit, which articulates the block as a whole (Oud 1919: 80-82; Taverne, Wagenaar and De Vletter 2001: 202-208).[6]

Such a task for the architect cannot be accomplished by limiting himself to the 'architectural' and keeping away from the 'utilitarian,' either in terms of the production or the use of the houses.

> 'The modern architect must therefore above all be thoroughly technically skilled (...) and in the broadest sense aware of social conditions' (Oud 1918: 78).

---

[6] The reversal of the houses is the logical consequence of the two screw-shaped intertwined staircases in the middle of the block, in order to situate as few family houses as possible on one staircase (note added by author 2022).

The job of the architect, in Oud's view, is to portray the mass product aesthetically.

> 'The architect then acts as a director, staging the mass products into an architectural whole: proportions art' (Idem: 79).

Amsterdam Van der Pekbuurt 2014 © Anna Vos

Summary Moment 2: The collective cityscape

Subjects   Netherlands Institute for Housing and Urban Development (1917)
National Housing Council
Central government
Municipal governments
De Stijl
Architects
Workers

Objects   Habitation
Housing requirements
Normal types of homes
The architectural solution of the housing block
The urban space
Collective cityscape
Not: individualistic cityscape
Not: individual dwelling

Concepts   The architectural profession
Social task
Individual - mass
Individual building - city
Public housing
Production
Standardization
Housing Shortage
Street plan and buildings
Regularity and repetition
Social unity idea
Bourgeois individualism
General culture
Aesthetics
The art of city building
Living room - kitchen - living room – beautiful room - bedroom
Personality
Being Human
Mass product
Use
Social Conditions

Strategy   Efficient production
Counteracting Inhabitation
Expressing the concept of public housing aesthetically
The design of urban space
The realization of a general culture
Portraying a mass product aesthetically

Plan   Separate kitchen and rooms
Dwelling situated on two opposite facades
Dwelling self-contained
Fill in and dress up blocks
Facades
Concatenation of the same units
Street plan
Expansion Plan

Amsterdam Spaarndammerbuurt 2022 © Anna Vos

Amsterdam Spaarndammerbuurt 2022 © Anna Vos

Moment 3: Minimum housing - Rational parcellation - Functional city

Research into the home gets new impetus in the 1920s. The theme of standardization, which at the 1918 Housing Congress was limited to the production of dwellings, was given a broader meaning when the use of dwellings was also addressed. The use of dwellings was conceived as a whole of actions and movements to be analyzed, for which the dwelling was the instrument to enable these to be completed as efficiently as possible: 'la machine à habiter' [the dwelling machine] (Le Corbusier 1923).

Like the car, an object that 'fits' people and can be mass-produced according to Taylor principles, the home must also become a series-producible unit, adapted to people's actions and movements. The aim of realizing efficient dwelling machines presupposes the knowledge of what happens/should happen in the house. This knowledge about modern daily life is produced by the social sciences.

In addition, business science and ergonometric studies mean a new way of looking at the home and what goes on in it. The household in itself becomes an object of analysis. Christine Frederick's publications on the subject helped spread the idea of efficient household management among architects, industrialists, and (house) women (organizations) (Frederick 1928).

Women's organizations seize on the idea of efficient housekeeping for a variety of reasons; for working-class women it means a prospect of relief from their mostly double duty, for bourgeois women it is an outcome from the so-called servant issue (Bervoets 1982).

For example, the 'Nederlandse Vereniging van Huisvrouwen' [Dutch Association of Housewives], founded in 1912, is focused

> 'to stimulate the construction and furnishing of hygienic and practical dwellings, the promotion of an economical household policy, the application of sound means in the field of housekeeping, and the solution of the servant question' (Boot et al. 1982: 344).

Theoretically, as in industrial production, the rationalization of the household could lead to larger units than the family, in which a number of activities such as cooking, buying in, looking after children, etc. could be carried out on a larger scale. In practice, paradoxically, the rationalization of the household appears to have had its effects in the home for the family and particularly in the kitchen as the workshop for the housewife. It is not easy to answer the question to what extent this has to do with the influence of social sciences, political motives, profit motives or with the influence of women - insofar as they held on to a 'private' field given the limited accessibility of the labor market -. That is beyond the scope of this paper. The point here is to note how the architectural task is formulated.

Firstly, following the discussion concerning the form that the rationalization of the household could take, in more collective units, in which the family did or did not remain 'intact', or in family units, spatial proposals were developed for both 'models'. Van der Waerden already considered the multi-story high-rise residential building possible in his preliminary advice, which in addition to being equipped with an elevator, central lighting, heating and hot water supply, would be fitted 'possibly with block or group arrangement of cooperative or loco-central kitchens' (Van der Waerden 1918: 5). In his introduction Berlage then referred to the example of America, where people live in blocks of dwellings

'(…) with a communal kitchen, with elevators for service, and with all other devices, in order to limit as much as possible, the hassle of supplying the material needs.' (Berlage 1918: 37).

In this sense, the issue of the addition of a large number of dwellings has a more far-reaching significance with Berlage. There are innovating plans such as the 'Coöperatiehuis' [Cooperative Home] by Gulden and Geldmaker (1926), in which family homes make joint use of a purchasing centre that stores goods in cellars connected to the individual dwellings by elevators, of a childcare area, a restaurant and guest rooms. There is the tower plan by Van Loghem (competition Goedkoope arbeiderswoningen 1936, Ottenhof (ed.) 1981), which mainly proposes technical innovations such as elevators, vacuum cleaners, etc. A third example is the plan by Lods (ibid.), that proposed high-rise because of the advantage of 'all kinds of facilities (...), which limit the housewife's activities as much as possible' and in which it would be possible to 'also exploit other spaces for communal use to make living more pleasant, as here, for example, in the stairwell, children's shelters and winter gardens over two floors each have been planned' (Ottenhof (ed.) 1981: 101). But such plans remain on paper for the time being. In the case of Van Loghem and Lods, the jury report dismissed them as too expensive.

It is not clear to what extent people here in the Netherlands were aware of the much more far-reaching proposals for collective residential buildings as they were developed in Russia in the 1920s, far-reaching in the sense that there is no longer any family unit, at least as far as the way in which daily life is ordered spatially is concerned. In the spatially differentiated dining, sleeping, school, work buildings, the individual is the starting point, who makes use of the entire complex alone or in varying collective contexts.

1980   1981   1983

In general, forms of housing other than for the family are presented as 'less preferable,' despite the advantages they may offer. The stacked family home also has to give way to the ideal of the low-rise family house with a living floor separated from the sleeping floor, which, however, often cannot be realized for economic reasons. Both types, multi-story and low-rise housing, are examined: 'Die Wohnung für das Existenzminimum' [The Dwelling for the Subsistence Minimum] (CIAM 2 - Frankfurt 1929). Within the house, the kitchen as a workshop or rather laboratory receives a great deal of attention, but so does the arrangement of the various rooms in relation to each other, the position of doors and window openings, the furnishings, the walking lines, and the sunlight.

The limited economic resources make the demand for the small efficient house all the more of a spatial issue, when the 'literal' realization of a program of requirements, which proposes separate rooms, turns out to lead, according to the housing production of the first two decades, to the concatenation of small cubicles, which can be relatively poorly used. Architect Stam opposes:

> '(...) to make the workers' dwellings no longer rigid and immobile. There are important reasons for making the floor plan in such a way that we can group and rearrange the house according to the needs of the particular time of day. This is a new way of organizing the floor plans of houses (Stam 1935, in Ottenhof (ed.) 1981: 25).

The reasons are given on the one hand by the fact that the different family members require more, less or even no space at the different hours of the day and night, which he illustrates with a diagram of the daily schedule, and on the other hand by the fact that the family is not a fixed entity, but grows and shrinks over time.
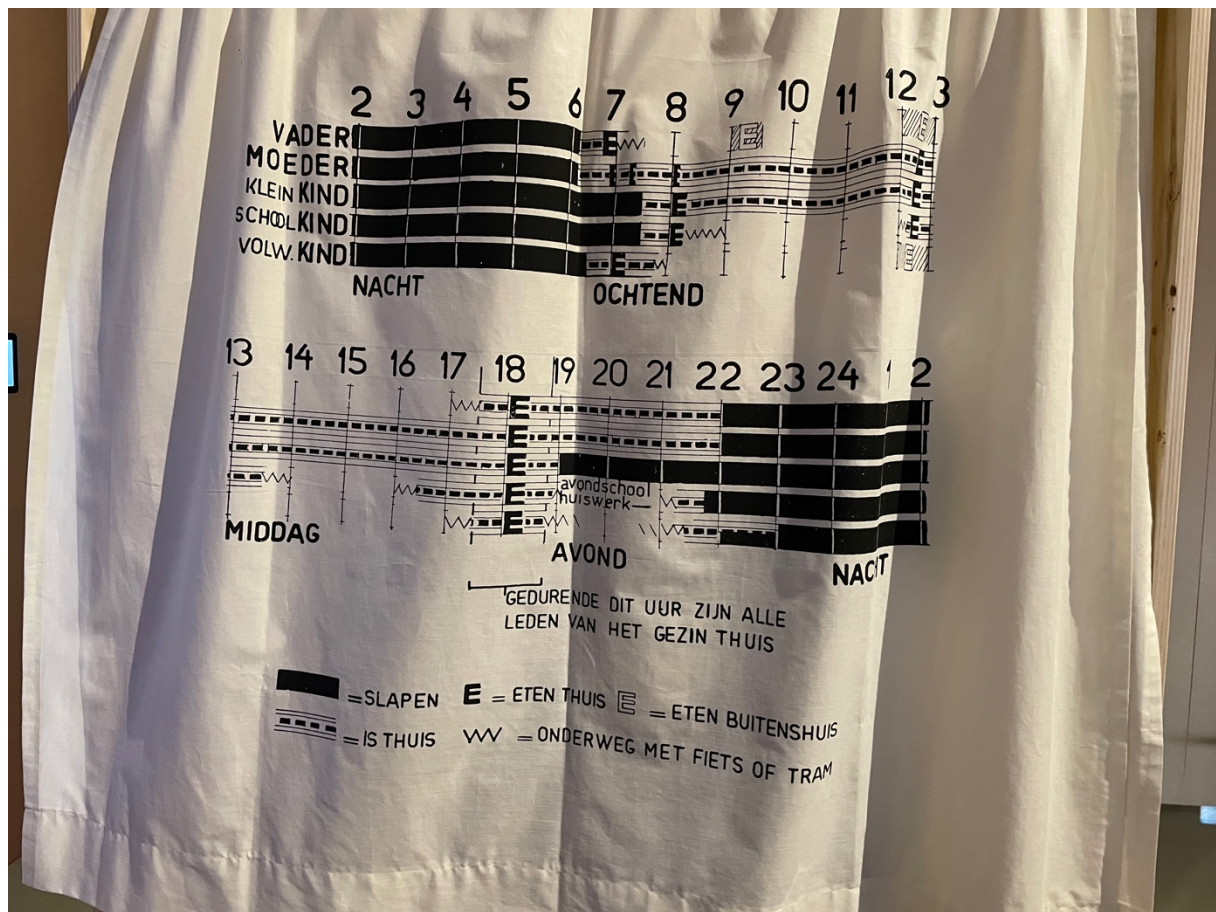
Mart Stam's Daily schedule of family members (1935; Ottenhof red. 1981) printed on cloth, at the exhibition Designing the Social in Het Nieuwe Instituut Rotterdam © Anna Vos

The tiny dwelling, according to Stam, cannot be the scaled-down edition of a middle-class dwelling because such a floor plan is unusable. The tiny dwelling must be designed so that

> 'we (can) give a part of the spaces, which during a part of the day would not or hardly be used, another destination during that time' (Ibid.).

Stam refers to a number of plans, submitted to the Goedkoope Arbeiderswoningen competition, which show such a new approach: Van de Broek's day and night plan, the plans of Van Loghem, Kliphuis and others. Lods' plan also raises the issue of dwelling size, insofar as his plan allows for changes in size without having to make any changes in structural terms or in the level of sanitary facilities.

A third aspect in the development of the dwelling is the connection with its location in the building block, in the grouping of dwellings, which help to organize the floor plan. The closed building block has had its day.

> 'A plea for open building is fortunately no longer necessary. Anyone who is more than superficially concerned with parcellation problems comes to the conclusion that a conscious orientation of the houses is a first requirement. (...) The dwelling type, which may have been bearable in the closed building block, has become unusable for the open building block. (...) The consistent train of thought, which underlies the open building block, (must) also be expressed in the type of dwelling (...)' (Merkelbach 1936, in: Ottenhof (ed.) 1981: 18).

Dwelling and parcellation are developed related to each other, in contrast to the method proposed by Van der Waerden, for example, and in line with the problem of the block with Berlage: 'Rationelle Bebauungsweisen' [Rational parcellation] (CIAM 3 - Brussels 1930).

Amsterdam Row building in Bos en Lommer 1992, Stadsarchief Amsterdam / Alfons Holslag

Theoretically, there would be only one 'correct' orientation of the house, in which the distinct spaces would catch the sunlight at the appropriate time for their function: the bedrooms on the east, the living room on the west. The urban design principle of 'Zeilenbau' [row building] is the most consistent form of parcellation, in which all dwellings can have an equal orientation. When streets are made, this has consequences for the dwelling floor plan, in the sense that the arrangement of the rooms on the east and west facade should be relatively independent of the location of the stairwell, as Stam elaborates in Hellerhof. The orientation of the rooms in the house according to their function is actually at odds with the attempts to design (the mutual relationship of) the rooms in such a way that 'double use' becomes possible, as advocated by Stam and explicitly designated as a quality by Van Tijen in his explanation of his entry for the 1936 competition.

In urban design, concepts are developed, which, arising from the research of demographic trends, developments in traffic and transport and economic developments, reproduce as a

matter of course the 'separation' of the research disciplines in a distinction into four functional areas: living - working - recreation - traffic: 'Die funktionelle Stadt' [The functional city] (CIAM 4 - Athens 1933).

> 'The concept of the city encompasses various complexes of thought, of which the traffic complex is one of the most important. The city must satisfy the necessities of life of human, both spiritually and materially and vice versa' (Van Eesteren 1923, in: Casciato, Panzini and Polano (eds.) 1980: 102).

Like a doctor, an urban planner should, according to Van Eesteren, make a diagnosis on the basis of statistical material concerning the distribution of the population by occupation and income, commuter traffic flows and suchlike, and either cure the ailment or seek out the fundamental causes. A comparison of existing cities can also reveal a great deal.

> 'If, however, one finds incurable diseases, the case becomes more difficult and one has to look for the root causes, which must lie in the society itself, of which the city and all architecture is only the outward appearance, the shell' (Ibid.).

For the time being it is 'a matter of intuition, which in this case must lie with the urban planner' to form an urban image, since laws and rules are still lacking (Idem: 103). In doing so, he can make use of the many examples available, from street lamps to streetcar tracks. Only by elementary means - the components that compose an urban image - can beauty be achieved, because, he argues

> 'Urban beauty arises from a expressive balance of components of which the city or the section of the city in question is composed' (Van Eesteren 1925: 166).

Thus, the city must be understood as a set of separate elements. The urban can be broken down into those components, which then compose the city in a 'pictorially balanced' design. Van Eesteren suggests in his narrative that the elements of which he speaks concern both the thought-complexes, the functions that the city must fulfil - creating the possibility of living, working, recreating and moving around - and the expressions, in which the thought-complexes show themselves – 'a horizontal viaduct, (...) a vertical factory chimney' (Van Eesteren 1923, in: Casciato, Panzini and Polano (eds.) 1980: 102-103). As such, one could derive a conception of urban design that aims to deal in a similar way with the 'data' provided by urban research and the images of the existing city, initially using the intuition of the urban designer and later according to established laws and rules.

When dwelling and block are studied in relation to each other, the city is a relatively independent issue, for which scientific techniques must be developed in order to be made 'understandable'. The relation block - urban space acquires a different connotation compared to, for example, Berlage's conception, where urban space was designed by means of the blocks. Now the block is aligned, as it were, with greenery, traffic and the like. This becomes clear in the proposals by De 8 and Opbouw for 'De organische woonwijk' [The Organic Residential District]. In it one tries to achieve unity between house - block - neighborhood, in the grouping of the blocks, traffic routes, green areas and facilities in an interrelated, coherent whole (De 8 and Opbouw 1932).

Compared to Oud, who wanted to bring about the unity of the block as an addition of dwellings and who leaves the street intact, for which the block forms the wall, in this view the building line can lose its significance and the blocks can be brought into a new coherence 'free in space'.

Amsterdam Osdorp 2004 © Anna Vos

Summary Moment 3: Minimum housing - Rational parcellation - Functional city

Subjects Architects
     Social Sciences
     (house) women (organizations)
     Industrialists
     Municipality of Amsterdam
     De 8 en Opbouw
     CIAM
     Urban Designer
     Urban Researcher

Objects Daily life
     Household
     Housewife
     Collective facilities in the block of (family) units
     Floor plan
     Parcellation
     Cityscape

Concepts Production
     Use
     Machine à habiter
     Hygienic and practical dwellings
     Rationalization of the household
     Functional city
     Living - working - recreation - traffic
     Demographics
     Economy
     Statistics
     Life needs of humans
     Physician - diagnosis
     Outward appearance of society
     Intuition
     Pictorial balance of components
     The organic district

Strategy Encourage the construction and furnishing of hygienic and practical dwellings, promote a thrifty
      household policy, apply sound means, resolve the servant issue
     Reduce the hassle of meeting material needs
     Limiting housewife activity
     Efficiently handling actions and movements in the home
     Making the city understandable by and for the urban planner

Plan   Kitchen
     Arrangement of rooms
     Positioning of windows and doors
     Furniture
     Walking lines
     Orientation
     Open building model
     Ratio house - block
     The house plan to be grouped
     The arrangement of residential blocks, green spaces, traffic lanes and facilities

Amsterdam Osdorp 2004 © Anna Vos

Moment 4: Individual and community - Dwelling and city

As we saw, before the Second World War, a variety of architectural concepts were still being developed as to how a collection of dwellings should/could be and how the dwelling relates to the whole as a part, both in a spatial and programmatic sense. In the post-war years the problem of the dwelling seems to coincide with the problem of the dwelling for the family and only two concepts seem to be viable, the individual dwelling and the stacked dwelling (apartment), both as independent entities for family occupancy. In short, any doubt regarding the concept of what a dwelling is seems to have been eradicated.

The family home is proposed as the general principle. Admittedly, within this general category of family home, a differentiation is made, according to the size of the families, which produces a series of variations on the general principle. The post-war architectural discipline will show itself 'unified' in this, but also on a much broader level.

The literal and figurative meanings of reconstruction go hand in hand. Already during the war, architects of different persuasions came together

> 'to come to a common understanding of the fundamental values (of dwelling) and their consequences for housing' (Studiegroep Woningarchitectuur 1946; reprint 1986: 145). 'There was a need for fundamental social renewal, both within and outside the resistance. We tried to set standards for this: The Architects' Program 1944. Of course, this is now partly outdated. You will also find Molière in it, something I am not ashamed of, because I still think he is a man of distinction, in contrast to almost everything around him. This set of standards was designed solely from the point of view of architecture and not multidisciplinary, as we are trying to do now.' (Boekraad 1982a: 66).

Thus, in an interview, Van Tijen articulates the stakes of the collaboration between diverse architects during the war. However, the research into the setting of standards in housing, which will eventually lead to the 'Voorschriften en Wenken' [Regulations and Directions], is carried out in a more comprehensive framework than Van Tijen indicates. Perhaps there is not so much interdisciplinary collaboration, but the belief in the social sciences and in the truths, they produce concerning the individual and his relationship to the community is nevertheless deeply rooted in the minds of architects.

In the 1920s, the use of statistical and demographic research left architects with a degree of freedom to develop more revolutionary images for modern society. But in the postwar period the use of socio-psychological research seems to lead, as it were, as a matter of course to one general idea about society and thence to an image of the spatial arrangement of that society.

Congruent with the concept of human in relation to the community, the architectural discipline focuses on the design of the home in relation to the city. Housing was to become 'one of the most important means of renewing our people's life' (Studiegroep Woningarchitectuur 1946; reprint 1986: 145). The approach to housing is characterized by the desire to achieve unity and cohesion from dwelling to city, in the 'Wijkgedachte' [Neighborhood concept].

The architect's field of work covers the entire range, from dwelling to city.

The concept of dwelling takes on a broader meaning compared to analytical thinking in functional categories such as eating, sleeping, cooking, etc. Housing must be more than the pre-war dwelling machine.

> 'Washing and ironing can, if desired, largely be done outside the home, food can be ordered, partially prepared. (...) In principle, of course, all the time and labor savings (...) open up the possibility of higher-level activities; (...). On the other hand, there is also the high and actual risk that in the dwelling people will actually only eat and sleep, sit down and talk, but that the totality of living will be completely lost and with it family life - like all life without sufficient totality - will fall prey to one-sidedness and inertia and finally to sterilization and meaninglessness. This gives rise to the well-known specter of the sterile public housing of the last few decades' (Bos et al. 1946: 71).

> 'Living (has) more content (...) than simply staying in the home.' (Studiegroep Woningarchitectuur 1946; reprint 1986: 145)

Living is
'enclosure and outward appearance of family life (...). Therefore, whoever says dwelling, says family and only those who understand the family can build dwellings' (Van Tijen et al. 1941, in: Casciato, Panzini and Polano (ed.) 1980: 172).

The importance of the family is described as follows:

> 'There is no other element of society in which everything that is important for mankind, the relationship between man and woman, between parents and children, and between children themselves, is so profound and so richly varied. The "oikonomeia" in its original literal sense, education in its primal forms, indeed the whole process of being born, growing, blossoming, bearing fruit and dying, takes place nowhere more richly and intensely than in family life' (Ibid.).

Further on, Van Tijen et al. argue that we are mistaken, however, when we present family life as we know it as natural and unchanging.

> 'The *forms* of family life, which we see, are *socially* determined. They change from people to people, from country to country, from time to time, from class to class' (Ibid.; italics corresponding to 1980 edition).

The unity sought, both at the level of the relationship of individuals to the community and at the level of the arrangement of dwellings in the city, must therefore be accompanied by a multiplicity of form.

> 'The principle of unity is of a different order, towards which the human being can only turn after the individual realization has taken place in diversity. Therefore, the residential city, like the family, offers an image of high and low, beginning and growth and end, rise and fall' (Ibid.).

Various publications of the 'Studiegroep Woningarchitectuur' [Housing Architecture Study Group] and related publications recognize differences in family forms, which will give rise to what we now call housing differentiation: dwellings for large, small, childless families, for the elderly, dwellings for intellectuals, middle class, blue collar workers (Studiegroep Woningarchitectuur 1943, 1944, 1946, 1955; Bos et al. 1946).

Low-rise, medium-rise, high-rise: Amsterdam Burgemeester Roëllstraat 1959, Stadsarchief Amsterdam, Dienst Ruimtelijke Ordening

Different dwelling types are distinguished for these groups, the single-family row house and the apartment for families, the residential building for newlyweds, childless people, singles. In terms of urban design, it is a matter of putting the different types of dwellings in the right mutual relation, in the context of the community, which the residents make up together.

> 'The neighborhood "unites" the individuals in the families, on a scale that is manageable for the city dweller. This requires an "understandable, clear structure"' (Studiegroep Woningarchitectuur – Kerngroep 1946).
> 'The coherence of the family with the society beyond should be promoted by the design of streets and villages, and, in the larger localities, by the creation of neighborhoods and districts with the accompanying common facilities of all kinds' (Studiegroep Woningarchitectuur 1946; reprint 1986: 145).

Housing is explicitly put at the service of fostering a sense of community, protecting and stimulating family life, and providing free development opportunities for individual family members. The latter is further specified by gender:

'In his professional activities, the city dweller (especially the man) experiences his relationship to the whole of social life. (...) Even though he is only directly involved with a very small part of all this, in professional life he always feels that the world is large and he himself is a small part of it. The opposite of these things is the sphere of living, which for the woman - because for her normally the family and social tasks coincide - is almost the entire sphere of life. Here, *one's own self* is the main thing and the center of attention. Here it is about the task that one performs for *oneself and one's family* and everything takes place on an entirely different scale and in an entirely different atmosphere, in that of the closed, intimate, limited and strongly personal versus the broader, impersonal, unprotected social intercourse' (Studiegroep Woningarchitectuur 1955: 10; emphasis in original).[7]
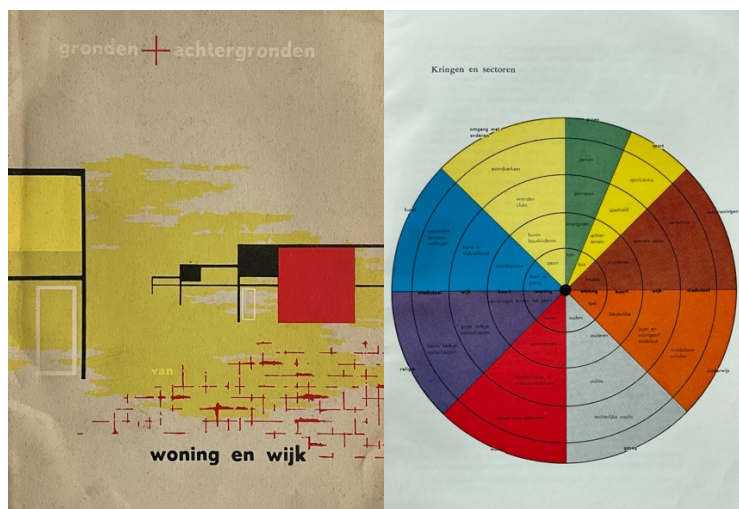
1955

The home is the (safe) center of an ordered universe. A social model, which concerns the relationship of individuals to each other, in the family and in the community, underlies the spatial model, which as such is presupposed to be able to contribute to the reconstruction of the new society. In such a way, housing would not only be economically, but also culturally and socially responsible (Studiegroep Woningarchitectuur 1955).
The 'principles' of responsible housing are elaborated in the Architects' Program, as far as the floor plan is concerned, in size analyses and diagrams for different dwelling types, according to the family size.
The development of a range of dwelling types for families of different composition implies a different approach to the problem of 'growth and change', than Stam had proposed before the war in connection with the need for spatiality also in small dwellings, resulting in changeable floor plans. Now 'thé appropriate dwelling' is being developed for each family of a specific size (and it is then a matter of allocating the right dwellings to the right families). A spatial purpose is now pursued by requiring a certain 'space surplus' above 'the purely calculable necessary'.

'It is with the dwelling about as with the shoe; already a slight lack of size makes its use a burden. A small surplus, on the other hand, immediately gives that easy all-round usability which family life in its rich variety needs so much' (Bos et al. 1946: 75-76).

---

[7] The quote in the 1986 edition differs verbatim, not intentionally, from the one included here.

The rooms in the dwellings are designated as living areas, sleeping areas, storage, play and work areas and traffic areas. With regard to the living room, it is stated that the undivided living room is a thing of the past and that it should be counted on to have three parts: the space for family togetherness, the space where the isolation of the family members is possible, and the space where cleaning, washing, ironing, etc. can be done, respectively the main living room, the second living room and the kitchen.

In the story apartment, it would not be necessary to count on a second living room, because even without this additional living room, the requirements already represent a significant enlargement of the apartments realized in the big cities up to that point, and moreover, because of their location on the same floor, the bedrooms can provide for this to a certain extent.

Amsterdam Burgemeester Roëllstraat (at the left) 1956, Stadsarchief Amsterdam / Dienst der Publieke Werken

The Architects' Program is followed up in two ways. First, the study of the dwelling is continued in the 'Studiegroep Efficiënte Woningbouw' [Efficient Housing Study Group]. This group set up a 'working group floor plans', later called the Technical Committee, to investigate the possibilities

> 'to normalize the usual floor plans of housing into a small series of standard floor plans' (Standaardplattegronden 1948).

Second, the Architects' Program forms the basis for the 'Voorlopige wenken voor het ontwerpen van een/meergezinswoningen' [Preliminary directions for the design of single/multi-family houses,' which were drafted just after the war, followed in 1951 by the 'Voorschriften en Wenken' [Regulations and Directions].

On the one hand, the Voorschriften en Wenken constitute a program for (good) housing, and on the other hand, they are part of a package of measures and are intended to secure the production of appropriate housing and to be a touchstone for the distribution of State funds.

The effect of this dual use of the Voorschriften en Wenken is that what is designated as the minimum program and minimum quality level will in most cases be the maximum financially achievable.

The program of the dwelling, as expressed in the Voorschriften en Wenken, is for post-war housing practice an unreflected starting point, which is still only modernized and expanded on points of detail in the later versions of 1965 and 1976. As such, it is also used, both at the level of design - no architect is still concerned with the question of what a house is / should be - and at the level of commissioning - where a program of requirements still only concerns numbers and differentiation -.

Organizations such as the 'Vrouwen Advies Commissies' (VACs) [Women's Advisory Committees] and the 'Stichting Goed Wonen' [Foundation for Well Living] also contributed to bringing about a consensus on the dwelling. The VACs had been established in numerous cities from 1946 onwards and were concerned with the dwelling, based on the specific expertise of women as housekeepers and childcare workers:

> 'After all, her voice is that of experience; she is the one who spends most of the day busy in the house' (Stemmen uit de praktijk 1962).

Goed Wonen promoted good living in the good dwelling that architects had figured out, for which the furnishings had to be purposeful and practical (Van Moorsel 1982). Other voices, such as those of organizations of working women and the bachelors' union, which disrupted this consensus by pointing out the impossibility of building suitable dwellings for singles, were not heard for the time being (Bentinck and Vos 1981).

Amsterdam Plein '40 - '45 Neighborhood center 1970, Stadsarchief Amsterdam / Dienst Publieke Werken

Summary Moment 4: Individual and community - Dwelling and city

Subjects   Architects
Studiegroep Woningarchitectuur [Housing Architecture Study Group]
Studiegroep Efficiënte Woningbouw [Efficient Housing Study Group]
Central government
Women's Advisory Committees
Foundation for Well Living

Objects   Living
Dwelling
Large, small, childless families, elderly, intellectuals, middle class, laborers
The city dweller
Social model
Spatial Model
Story apartment
Single-family house
Standard Floor Plans

Concepts   Ground values of living
Housing Development Program
Standard setting
Individual - family - community
Dwelling - city
Neighborhood
People's life
Enclosure and outward appearance of family life
Unity (of the community)
Plurality of the form
Ways of living
Space surplus
Living rooms - sleeping rooms- storage-work-playrooms
Normalize

Strategy   Reconstruction
Rebuilding society
Social Renewal
Renewal of our popular life
Achieve unity of individual and community, of dwelling and city
Culturally and socially responsible housing
Provide appropriate housing
Minimum quality guarantee

Plan   Housing differentiation
Size analyses
Model for neighborhood and district

Moment 5: Habitat

Immediately, when the postwar housing practice appears to result in the enormous production of uniform standard houses, driven by the housing shortage and the government-supported industrialization in the construction sector, some 'angry young men' make themselves heard in their protest against the poor excesses of functionalism, from which, according to them, all humanity has disappeared.

Also from a more traditional side objections are made and pleas are made for a revaluation of the symbolic dimension of architecture. In reaction to the presupposed meaninglessness of functionalist architecture, the symbolic gets all the attention (Bouwen van woning tot stad 1946).

The second element in the criticism of the 'angry young men' is inspired by the attack that the mass housing practice makes on the position of the architect, who has become an insignificant cog in the machinery of design and is only the servant of government and industrial production. They demand a new position for the architect-urbanist. Their story appears in Forum, which with the change of editors becomes the channel of the 'other thought' of the 'angry young men': Van Eijck, Bakema, Hertzberger, and others (Van Eijck et al. 1959 Het Verhaal van een Andere Gedachte).

The first magazine under their editorship appears in 1959 and is titled 'Het Verhaal van een Andere Gedachte' [The Story of Another Thought]. Compiled by Aldo Van Eijck, the magazine takes stock, as it were, of 30 years of CIAM, from La Sarraz (1928) to Dubrovnik (1956). Van Eijck frequently quotes from the statements made at the conferences and provides them with commentary. The text is illustrated with photographs with captions by Van Eijck.

The Story of Another Thought begins with:

> 'This magazine is both a conclusion and a beginning. At the beginning of this beginning two observations are in their place. The first - that the Netherlands is becoming uninhabitable in a spatial sense - is a reality that is only getting through to consciousness when breathing becomes shorter. The second - that architect and urban planner, whose existence and right to exist should be based on the possession or use of imagination and expressive capacity, have a very large share in making this small country uninhabitable - is a paradox that is finally beginning to gnaw at our conscience' (Van Eijck et al. 1959: 199).

It is the beginning of the revaluation of the artist-architect, not in the sense of decorator, but as an imaginer of a human society. The 10th CIAM congress in Dubrovnik ushers in the new era, restoring the creativity that was banished with the pre-war CIAM congresses.

> 'From what CIAM produced between 1925 and 1938, it is striking how much it assumed the negative; how much the thoughts formulated during the prewar CIAM conferences were a reaction to the civil misery created during the previous century and the beginning of this century. This short-sightedness is perhaps humanly explicable but culturally puzzling, for in no other field of creative doing and thinking has "innovation" proved arbitrary. It was not "la Ville Radieuse" that has dawned on the urban designer, but CIAM's "die funktionelle Stadt." Not the "liberated dwelling" has dawned on the housing official, but "Die Wohnung für das Existenzminimum"'(Idem: 200).

Amsterdam Civic Orphanage IJsbaanpad (arch. Aldo van Eijck) during construction 1959, Stadsarchief Amsterdam / J.W. Arsath Ro'is

The essences became hidden behind the wrong dogmas. Where the Charte d'Athènes spoke of two contradictory principles, the individual and the collective, Van Eijck argues that from such a delusion no viable habitat can grow, because individual and community are ambivalent and form a 'duo phenomenon' together.

The four fundamental functions - Dwelling, Working, Recreation, Circulation - that the Charte d'Athènes distinguished are a reduction of the multiplicity of urban activities and are not the totality that was assigned to them.

A naive belief in the possibilities of technology was accompanied by a naive distrust in the possibilities of art, Van Eijck says of the prewar congresses. At the 1st postwar CIAM congress in Bridgewater (1947), Van Eijck himself brings up architecture as art:

> 'Although architecture - planning in general - answers very tangible functions, ultimately its object differs in no way from that of any other creative activity, i.e. to express through man and for man the natural flow of existence' (Idem: 205).

The first congress was intended as a general reorientation to postwar reconstruction problems. Giedion articulates the change as follows. He states that before the war CIAM was concerned with

'the industrialization of building methods, standardization and the development of contemporary town planning. Now we consciously promote another step. A step towards a rather intangible subject; aesthetic problems or, you may prefer to say, emotional expression' (Van der Woud 1983: 82).

He is supported in this by the younger generation, including Van Eijck. The next CIAM congresses, according to the Bridgewater's statement, will have to deal with

'the planning and designing of *human settlement* and architectural expression' (Idem: 84; italics in original).

The 1928 statement of La Sarraz, which advocated an intensive connection with the economy through rationalization and standardization, a functionally rather than aesthetically based urbanism, an architecture at the service of modern life, is restated in Bridgewater:

'The aim of Ciam is to work for a creation of a physical environment that will satisfy man's emotional and material needs and stimulate man/s spiritual growth' (Van Eijck et al. 1959: 205).

This last phrase had been added at Bakema's suggestion, 'softening the aggressive split of emotional and material needs (Ibid.).
After the 7th congress in Bergamo (1949), which mainly discussed the problem of comparability of plans, the 8th congress was devoted to a theme: the Core (Hoddesdon 1951). According to Van Eijck, there the inadequacy of the old analytical approach became palpable.

'In other words, it became clear that the things that determine life in a city fall through the cracks of the four functions and lie beyond the reach of analytical thinking' (Idem: 206).

To these four functions, one of which, Recreation, had previously been replaced by Cultivation of Mind and Body, the notion of Core is added in Bridgewater:

'There is, however, another element which is quite distinct, it is, in fact, the element which makes the community a community and not merely an aggregate of individuals. An essential feature of any true organism is the physical heart or nucleus, what we have here called the CORE.
For a community of people is an organism, and a self-conscious organism. Not only are the members dependent on one another, but each of them knows he is so dependent. This awareness, or sense of community, is expressed with varying degrees of intensity at different scale-levels. It is very strong, for example, at the lowest scale level, that of the family. It emerges again strongly at five different levels above this, in the village or primary housing group; in the small market centre or residential neighbourhood; in the town or city sector; in the city itself, and in the metropolis, the multiple city. At each level the creation of a special physical environment is called for, both as a setting for the

expression of this sense of community and as an actual expression of it. This is the physical heart of the community, the nucleus, THE CORE' (Ibid.).

The architect knows that there is a need for Core, but the people themselves do not yet know it, and the architect does not yet know how to design Core. Core should become formative for architecture and urban design.

> 'Its function is to provide opportunities - in an impartial way - for spontaneous manifestations. It is the meeting place of the people and the enclosed stage for their manifestations. (...)
> The people must be given a means by which they express their feelings or give vent to spontaneous reactions.' (Idem: 214).

The various contributions at the conference reveal different associations with the concept of Core: Giedion talks about the Greek agora, Richards speaks of collective memory, Bakema recalls a cemetery and a sauna as possible places of Core (Van der Woud 1983: 94).
At an interim congress in Sigtuna (1952) in preparation for the next congress, it is determined that something like Core could only be worked out in a broader context. This broader context, Habitat, forms the subject of the 9th congress in Aix-en-Provence (1953), which, according to the idea of the ones preparing the congress, should draw up a Charte de l'Habitat.

> 'As far as man is concerned, the word Habitat encompasses all aspects of taking possession of the ground and of space in order to organize them with a view to his biological, sociological and spiritual life' (Idem: 95).

Amsterdam Sint Antoniesbreestraat 2002, Stadsarchief Amsterdam / Martin Alberts

Habitat is the concept of something universal, something to which all people are entitled. I.e. the right to the satisfaction of emotional and material needs and stimulation of spiritual growth, through architectural and urban design interventions (Idem: 98).

According to Van Eijck in the Andere Gedachte, Aix-en-Provence marks a turning point. The young guard appears on the scene. The Urban Design Committee at the congress advocates the 'visual group' as an architectural element.

> 'The articulation of such visual elements will help to preserve man's identity in spite of the great numerical extension of the problem. The architect has a special task in the creation of this element in order to give it plastic expression. Architects and planners will help mankind to find its identity on earth by humanizing space required for man's needs' (Van Eijck et al. 1959: 219).

The Commission on the role of aesthetics in Habitat came up with the example of the architecture of 'primitive' peoples, from which speaks a unity of mind and feeling, of utensil and symbol, of technique and culture, of individual and community. To which Van Eijck says in Forum: 'Voila! "The moment of Core"' (Idem: 224).

According to Van Eijck, in Aix-en-Provence

> 'for the first time the necessity of arriving at a fundamentally different relationship between architect and urban designer became clear. (…) It is becoming increasingly clear that the creative field of activity of the architect and the urban planner cannot be defined quantitatively. The division of the total Scale of Association into two disciplines is artificial, arbitrary and arbitrary. Between the home and the city lies one field of work. The "urban planner" is an unreal invention of the twenties born out of the conditions and one-sidedness of the "architect". Faced with the diseases of the big cities, the urban planner stood as a physician, developed a general diagnosis, prepared some medications, but did not realize that with diagnosis and medications one can cure an organism, but not create one. A city does not heal, but regenerates' (Idem: 220).

The young guard, who did most of the talking at this congress, also prepared the 10th congress in Dubrovnik (1956): Team X, which also included Bakema and Van Eijck. The intention of the preparation group was, not to present 'studies', but to present work in the form of elaborated projects for an ideal human Habitat. In the instructions, the preparation group states:

> 'We are seeking the ideal habitat for each particular place at this particular moment, uncompromised by existing arbitrary laws and restrictions, in attempt to reach a moment of truth. (...) we are only interested in the outcome (...), not in diagrams of relationships or analytical studies' (Idem: 231).

At the conference, the submitted projects will be studied in four groups, each focusing on an aspect: Cluster, Mobility, Growth and Change, Urbanism and Habitat. By the way, a fifth group, composed of older CIAM members, abstained from discussing the plans and set about the task of preparing a publication of 25 years of CIAM activity, which marked the beginning of the end of CIAM, Van Eijck said.

Cluster is not about dividing a community into parts, but about developing a whole new structure for each community. It is about the question, Bakema said afterwards in an

interview, of how contacts between people could give rise to urban grouping, to cluster (Boekraad 1982b: 89).

> 'To relate the parts of a community in a total cluster, a new discipline must be developed. We must find ways of weaving new units into the whole cluster so that they extend and renew the existing patterns. At all levels of community identifying devices are necessary, but at the city scale the community cannot be made comprehensible without something particular to city' (Van Eijck et al. 1959: 232).

As 'identifying devices' - natural or man-made - the hill, the tower, the river, the harbor, the cathedral, the seashore, the agora, etc., are valid. (Idem: 234).
What the Smithsons, authors of the previous quote, would mean by 'particular to city' is associated by Van Eijck with two plans, which would represent this. Referring to the second plan for Alexanderpolder and Blom's plan - 'the cities will be inhabited village by village' - Van Eijck states in bold letters:

> 'There is a tendency to change from small cellular units of cluster which are used additively, to the creation of a major structural element, increasing the scale in order to make it more comprehensible' (Idem: 232 and 243-245).

From the report of the Growth and Change group, Van Eijck quotes in particular statements about the tasks of the architect-urbanist:

> 'The architect-urbanist must face the total, ever-changing and complex problems of habitat by developing the method of his discipline. (...) The architect-urbanist must develop a discipline (analogous to that of the road-engineer or bridge-builder) through which he may control the size and growth of habitat. Through this discipline he must realise built elements which are, in themselves, complete expressions of habitat, and yet, because of their size and their content, they may become interdependent elements of the whole.
> The architect-urbanist must realise elements of reference ("signs" of identity), through which people who are moving may experience get a sense of location in the world.
> The architect-urbanist must provide, among other elements, elements which can be changed by individuals and by groups in order that they may express creatively their separate identities.
> The architect-urbanist must interpret, select, and integrate in plastic form the results of scientific investigation which may enhance the condition of existing habitat (...).
> (...).
> The architect-urbanist must re-establish the power of his discipline so that his active participation in the affairs of the community is equal to that of the economist and politician of the present time' (Idem: 236-237).

The plan for Alexanderpolder and Blom's plan are concluding the Story of Another Thought or rather announce the beginning of Habitat:

> 'It cannot be otherwise than from this will come a more humane Habitat. One that will be more like an orderly kasbah than one would like to believe today' (Idem: 243).

In later publications of *Forum*, the Story of Another Thought continues to be told, by Van Eijck in two articles, 'De milde raderen van de reciprociteit' ['The Gentle Wheels of Reciprocity'], in which he discusses his orphanage plan (1960) and 'De straling van het configuratieve' ['The Radiation of the Configurative'] (1962) (Van Eijck 1960/1961 and Van Eijck 1962).

> 'Architecture and urban design, deliberately broken up, are increasingly plagued by a linear and uniform conception, with which whole and part, unity and diversity, large and small, much and little, simplicity and complexity, order and chaos, closedness and openness, inside and outside, individual and community, as coherent twin phenomena have nothing to do' (Van Eijck 1960/1961: 206 and 1962: 81).
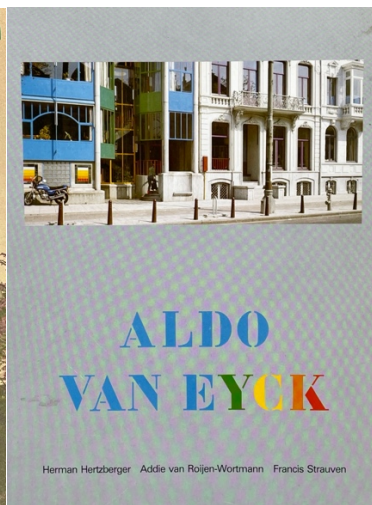
1976   1982

Van Eijck's notion of reciprocity points to the simultaneous presence of what he calls the twin phenomena, which in mainstream thinking are seen as conflicting polarities and which he wants to restore to their essence: the ambivalence of light and dark, inside and outside, open and closed, individual and collective, etc. When either element of a twin phenomenon is isolated, they lose all meaning. As a whole, on the other hand, each twin phenomenon has a multiple and many-sided meaning.

The notion of configuration that Van Eijck contrasts with the principle of addition, according to which a simple addition of elements takes place, without obtaining an extra dimension as in common building practice, that notion of configuration refers to the intention of making the small in such a way that it already carries the large, but can just as well appear as part of the large.

Just as the individual is both part of the collective ánd individual, so the house should be both part of the city ánd house:

> 'Make every house a small town and every town a big house' (Van Eijck 1962: 81).

As a result of the orphanage, he says:

> 'The aim was to make a home for children, but also to set the gentle wheels of reciprocity in motion again within the framework of architecture. For it is a movement, in which the

mind feels at home, because it is a movement in balance, a movement in which the singular discovers the lost peace, (and) the plural will find the not yet discovered harmony in movement' (Van Eijck 1960/1961: 206).

It is the task of the architect-urbanist to realize meaningful elements, such as a church, a palace, a wall, a harbor or a mountain or river have the function of 'identifying devices.'

'The places where such great elements convince, (remain), because they are not only visually or spatially qualifying, but also because they still make a positive contribution today to the ordinary activities of the inhabitant - offering his mind what it needs - , such places remain the strongest in our memories (...), because we do not forget mind experiences' (Van Eijck 1962: 86).

Blom's study plans are cited by Van Eijck as a cross-border example, in that all the usual notions of street, square, door, room, of dwelling and working, of architecture and urban design, are jettisoned. What emerges is the dwelling that has the potential

'while retaining its own identity, to let arise larger units as a matter of course through the right connection - with another own identity, enriching that of the dwelling as such' (Van Eijck 1962: 82).

Van Eijck sees the African kasbah as the epitome of such an all-encompassing structure that makes 'total' life possible. [8]

Among his 'followers', Van Eijck's ideas remain literally superficially developed. The image of the kasbah, of the all-encompassing structure, appears to be able to be reproduced while the constituent elements, the standard houses, themselves do not undergo any fundamental change. Behind the frumpy facades the 'old' Regulations-and-Directions-dwellings are hidden. Humanity appears to be only one facade thick.

Van Eijck's story is followed up in another way, in the work of whom are known as the 'structuralists,' in which the ordered kasbah becomes a model for the spatial structure, used in numerous projects, dwellings, offices, community centers (Strukturalismus 1976).

A third path is taken by Habraken, who reformulates the integral approach from dwelling to city into a concept of 'drager en inbouw' ['supports and infill', that is, a support structure and interior packages to be built freely into that structure] that should enable residents to play an active role in the creation of their own environment. Habraken limits the role of the architect to providing the framework within which residents themselves can get to work (Habraken 1964).

---

[8] Piet Blom's Mensa on the campus of the Technical University Drienerlo, his very first 'kasbah' project, was under construction in the spring of 1970. A visit to that building under construction - an exciting, almost intangible space - as part of the information days for girls about studying at (then) Technical High Schools, made me change my mind on the spot: I decided to study architecture instead of chemistry. (note added by author 2022).

Summary Moment 5: Habitat

Subjects   Artist-Architect
Architect-urbanist
Forum
CIAM
Team X
Human beings
Not: Urban Design Officer
Not: Housing Officer
Economist
Politician

Objects   The human settlement
One field of work from dwelling to city
Structure for each community
Identifying devices - reference elements - signs of identity
Size and growth of Habitat

Concepts Art
Imagining a human society
Creativity
Aesthetics
Emotional expression
Duo phenomenon of individual and community
Biological, sociological, spiritual life
Emotional and material needs
Spiritual growth
Cultivation of body and mind
Core - the material heart of a self-conscious organism
Habitat
Unity of feeling and reason, utensil and symbol, technology and culture, individual and community
Regeneration of the city
Cluster, mobility, growth and change, urbanism, habitat
Power
Reciprocity
Configuration
Mind

Strategy   Imagining a human society
Expressing the natural flowering of existence through and for the benefit of human beings
Creation of a material environment that will satisfy man's emotional and material needs and stimulate his spiritual growth
Expressing a sense of community
Preservation of human identity
Provide opportunities for events in social life
Humanizing the space
Making the city understandable to the city dweller
Giving people a sense of place in the world

Plan   The house a small town, the city a big house
Areas for the 'in between'
Visual group

Hill, wall, square, tower, mountain, river
Repetition of the differentiated dwelling unit
Disappearance of the independent bodies of the residential elements

Amsterdam Sint Antoniesbreestraat 'Pentagon' 1984 (arch. Van Eijck & Bosch), Stadsarchief Amsterdam / Dienst Volkshuisvesting

Moment 6: In search of the lost city and architecture

Carel Weeber fulminates against the frumpy-ness, against the illusion of the unity of architecture and urban design, against the psychologisms, sociologisms and other -isms about architecture, in short against the 'achievements' of the 'democratization' of the sixties and seventies. But he does so by means of his 'provocative' buildings more than in words and certainly not in words about his own buildings.

Amsterdam Venserpolder, arch. Carel Weeber 2006 © Jan Derwig

In an article in Plan (1979), Weeber examines what causes the decay of housing architecture, not so much in a 'functional' sense - the developments in the field of standards have brought about a certain increase in quality, according to Weeber - but rather in a 'formal' sense, which is therefore the focus of the article.

> 'In this respect, urban design is the point of view, because it is primarily the demolition of this discipline that is the cause of the, in my opinion, sad position in which architecture currently finds itself' (Weeber 1979: 27).

Immediately afterwards he observes that even the architectural discipline itself has disappeared. This tendency, in which it seemed that architecture could only be legitimized through other disciplines and which, according to him, was heralded by Forum, in which the human element was central, was followed by the democratization (of building practice, of education), in which the social element was central. He approvingly quotes Van Tijen, who as early as 1961 accused Forum of confusing essentially different things with each other:

'"The architect is not responsible for society. He is responsible only for architecture, partly for building and entirely for his own work. If one does not keep that apart, one cannot promote architecture"' (Idem: 28).

According to Weeber, architecture has disappeared behind a curtain of words.

'The result is a design production that is a-architectural' (Idem: 27).

Weeber speaks of an urban design discipline that has broken down, an architectural discipline that has disappeared, an a-architectural design production. He must therefore have an idea of what urban design, architecture, architectural was or could be. Urbanism and architecture disappeared, Weeber said, precisely because they had to merge, in order to understand and express, according to Forum ideology, the complexity of the social and the human.

'Urbanism as an independent discipline, in this view, had to disappear and be integrated into architecture' (Idem: 32).

The architectural conception of Forum, 'full of moralistic content,' according to which one builds consolations for humanity, places of individuality in the big bad world - or, in Weeber's words, architecture as narcotic and the architect as dealer -, such an architectural conception has narrowed architecture to the domain of and the product of the personal, individual, creative, the subjective (Idem: 29).
Weeber, on the other hand, argues that architecture is 'a culturally and historically anchored dynamic visual system.' (Idem: 31). In a sense, Weeber supports Forum's train of thought, to want to merge urban design with architecture, when he considers the state of the urban design discipline at the time:

'(...) by means of objectives (one describes) intended visual qualities (...): their material realization is left to the next design phase: architecture' (Idem: 32).

However, Forum's choice, in the face of such a practice, to want to integrate the disciplines, has not been able to give an urban design dimension to the design discipline, as it would have existed in the past. Forum cannot offer a spatial alternative to the growing flood of words, but instead goes along with the flood of words itself. Weeber's criticism, however, applies equally to what preceded Forum, 'the urban design (...) as if it were a three-dimensional free sculpture' or the free block plan, as expressed in the Neighborhood concept (Idem: 34). According to Weeber, the rational principles of functionalism were thereby abandoned and exchanged for urban design based on arbitrary subjective grounds. Against this he posits the right to exist for an autonomous form of urban design, such as existed in the past. The illustrations accompanying the text refer to this vanished urban design practice: the Roman army camp, Montpazier, Karlsruhe, 19th century Paris, strikingly enough the same examples that Berlage cited to demonstrate the beauty of the earlier regular city layout.

Venserpolder Amsterdam 1990 (Urban plan Carel Weeber), Stadsarchief Amsterdam / Martin Alberts

Against the urban practice of words, which 'appear to be separate from, (...) at least not directly translatable (into) meanings in spatial forms', Weeber argues for an autonomous urban practice, which works on the development of

> 'formal visual techniques in which visual qualities do their objectifying work at the level of a plan.
> (...)
> Very objective, then, is the plan if, because of its own internal (formal) obviousness, the plan character can be adopted by the built itself and is reproduced in it' (Idem: 32).

The aforementioned historical examples of autonomous urban design practice appear as 'formal concepts' to have been able to be the 'carriers' of changing meanings, values and functions (Idem: 33).
In the text itself, he only discusses the example of Cerda's 1859 plan for Barcelona.

> 'the plan character (is), after a formal pattern has been established at the urban level, adopted by the built reality (...) and also reproduced' (Idem: 34).

The plan establishes a number of 'guarantees' without functioning as a straitjacket. It does not leave too much or too little to architecture. Thus, architecture no longer has to solve the problem of its location. On the other hand, the infill, although different, always proves to be a confirmation, a consolidation of the urban plan, so that the plan character becomes readable from the built-up area. Only now, when the possibility of high-rise is raised, the obviousness of the plan is broken up. With it, subjectivity is introduced.
The objectivity of the grid plan depends on:

> 'the straight line and right angle
> a geometrically tasteless (not distasteful) repetition and continuity
> a measurement grid (...)
> an open plan character both with respect to a further formal elaboration and with respect to the grouping of functions' (Idem: 34).

Weeber emphasizes that such a plan 'is not so much a design of a city as the design of a pattern for a city'(Ibid.).

In opposition to the urban design practice since the 1930s, Weeber argues that we must return 'once again to an autonomous formal urban plan,' in which it is not the visual qualities of the individual buildings, but those of the public space, that primarily determine the quality of the cityscape (Idem: 35). The buildings play only a subordinate role in this. The urban plan

> 'is primarily a formal objective two-dimensional composition, aimed at ordering public urban space (...), (...) anticipates typologies of future building, (...) is indifferent to future patterns of function (...)' (Ibid.).

Afterword at Moment 6 anno 2022: From pettiness-criticism to a plea for 'Wild wonen' [Wild dwelling]

Already in the nineties, after the Berlin Wall fell, Weeber loses his faith in rationalism, proclaims the end of 'state-architecture', opens the door for liberalism and exchanges his criticism on what he called the 'new pettiness' for a plea for room for individual living desires.[9] His publication 'Het Wilde Wonen' is the beginning of a tendency, that goes by 'Gewild wonen' [dwelling as wanted], the invention of Adri Duyvestein in his function as elderman in Almere, and 'Consumentgericht bouwen' [building according to consumers' wishes] to the Do It Yourself practices of today. At the same time, it seems that the professional community has lost any common idea, everything is possible without discussion.

1999 Stuurgroep Experimenten Volkshuisvesting

---

[9] See the article (in Dutch) from 1997 by Bernard Hulsman in NRC:
https://www.nrc.nl/nieuws/1997/04/04/het-wilde-wonen-carel-weeber-wil-af-van-het-rijtjeshuis-7348376-a307145

Summary Moment 6: In search of the lost city and architecture

Subjects	The architect
	The urban planner
	Not: social, historical, etc. sciences
Objects	Residential Architecture
	Urbanism
	Not: Society
Concepts	Formality
	Functionality
	Objectifying formal plan techniques
	Cultural Historical
	Dynamic
	Imaging system
	Autonomy
	Carriers of changing meanings, values and functions
	Two-Dimensional Composition
	Types (of buildings and of public urban spaces)
	Function-indifferent
	Review
	Continuity
Strategy	Rational urban design
	Ordering public urban space
	Architectural design production
Plan	Pattern for a city
	Measurement grid
	Infills

How would we characterize today's moment (3) Amsterdam NDSM 2022 © Anna Vos

Comment

A first comparative reading characterizes the different discourses as follows. (The numbers refer to the moments).

1. Various disciplines and (beneficent) institutions and persons speak about the (dangers of the) mental and physical misery in which the working class finds itself, for whom a program for the good home is written as a means of moral development = leading a healthy and orderly life. Architects develop models for the good dwelling and the grouping of dwellings.
2. Architects talk about the problems of the block and the urban space which, as a repetition of the unity of the working-class dwelling - almost known in terms of its layout - must be designed in order to give expression to a general culture, namely in the collective cityscape, and to achieve efficient production. The manner of habitation/lifestyle is a problem of a different order.
3. Architects interpret the knowledge of the social sciences concerning daily life in the dwelling and the city, into a problem of the dwelling, which in a rational way must be developed spatially related to the parcellation, and into a problem of the city, whose complexity must be understood in order to be organized, in such a way that the dwelling and the city can meet the human needs of life, materially - as efficiently as possible - and spiritually.
4. Architects speak about the spatial expression of the multiplicity of (family) forms and about the unity, which they are together in the community, in a multiplicity of dwelling forms and in a recognizable unity, which they form in the city, in order to promote the cohesion of the family with the society outside of it and to stimulate the sense of community.
5. Architects speak of the material representation of a human society, in which dwelling and city, like individual and community, are simultaneously present in a whole/structure as a place for social events, so that identity is expressed, of dwelling and of the larger whole, of individual and of society.
6. Architects speak of the formal objective urban plan as a pattern of the city, into which the (housing) architecture fits, so that an arrangement of the public urban space and an architectural design production are achieved.

Although architecture is always a material/spatial object, something that can be built, it turns out that, when the object of the architectural discipline is formulated, there is more. With Berlage (2) and Weeber (6), the conception of the architectural discipline appears as the material and spatial production - a production that in Berlage's case is formulated as an aesthetic issue. But in the other cases the material and the spatial appear as aesthetic (3) / socio-cultural (4) / emotional (5) expression of something else, of modern society (3), of the sense of community (4), of human society (5).

The ambiguity of what the different moments designate as the architectural task is located both in terms of what the 'architect' (urban designer / architect-urbanist, etc.) does, which object he deals with, which concepts are used, as well as with regard to the strategy, the goal that is aimed at.

What the 'architect' does, the activity said to be performed by the 'architect' - the 'architect' as one of the acting subjects - varies from

- The design of single objects
- The design of housing masses and / in the urban space
- The rational study of floor plan, parcellation and cityplan
- The determination of the quality of living and of the home
- The design of the recognizable unit
- Creating (a structure for) habitat
  To
- The design and infill of a pattern for the city.

The material/spatial objects, which the architectural discipline 'thinks,' are not equally problematized at every moment.

- The dwelling appears as the problem of the program for the working-class dwelling (1), of the dwelling machine (3), of the specific type of dwelling for the specific type of family (4). In (2) and (6) there is no problem of the dwelling. In (5) it does not appear as a separate problem, but the dwelling is 'the same' as the city.
- The relationship of the dwelling to the block (or another addition of dwellings) is the problem of their rational cohesion (3), of the specific block for the specific type of dwelling (4). The aspects of sunlight, walkways, etc. in (3) are replaced by the categorization of the population as a determining factor for the coherence of house and block: the small apartment in the high-rise, the large house on the ground. In (3) there is also the question of the programmatic coherence of dwelling and block, in the sense that the unity of what the dwelling is or what a number of units together are, has different spatial effects.
- The block in itself is seen only in (2) as an issue, which must be solved by the architectural discipline, namely as the collection of equal (known) units of standard types of housing. Assuming that the dwelling was sufficiently well known, Berlage introduced this problem as related to the problem of urban space, but in doing so also announced, as it were, the problem of the relationship of dwelling to block.
- In (2) the relation of the block to the urban space implies therefore to create the urban space with the material of the houses. In (4) the blocks must form a recognizable unit among themselves as a grouping of blocks in the space. In (6) the block, the built, must conform to the pattern in a formal sense, but the relationship in a functional sense is indifferent.
- The city appears in (2) and (6) as the problem of urban space, in (1) as a technical problem, in (3) as the problem of meeting urban functions, in (4) and (5) as the design of (human) society. In (2) and (6) in both cases there is urban space, repetition and continuity, a formal unity / objectivity. But in (2) the street plan is a three-dimensional block plan - with the blocks as the walls of the urban space -, while in (6) there is a two-dimensional pattern, in which a certain degree of formality is guaranteed, without, however, determining the typology of the three-dimensional objects in advance.

- In (5), the (structure of) housing in the city becomes the problem of the relationship of sizes, of the small and the large, which are essentially presented as 'the same'.

If the task of the architectural discipline is the material/spatial production of objects, it is clear from the various moments that, with the exception of (6), such production is given a more far-reaching meaning.
- The upliftment and moral development of workers
- The realization of a general culture of the working class
- The streamlining of modern life
- The renewal of public life
- The achievement of the unity of individual and community
- Eliminating the community with ancillary residents
- Creatively making productive the interdependence of individual and community
- The rational urban design
- The ordering and regulation of life in social and in spatial terms
- Mental and physical health
- Satisfying the necessities of human life, spiritually and materially

Although sometimes mutually contradictory, there is always an intention for which the material/spatial object lends itself/can be used.

The main question that this article leaves open is the question of what emerges at the level of the plan. The next step, then, will have to involve a similar editing of what is identified as the material production of architecture: the plans.

Only then a genealogy of the architectural can be written that includes both words and plans.
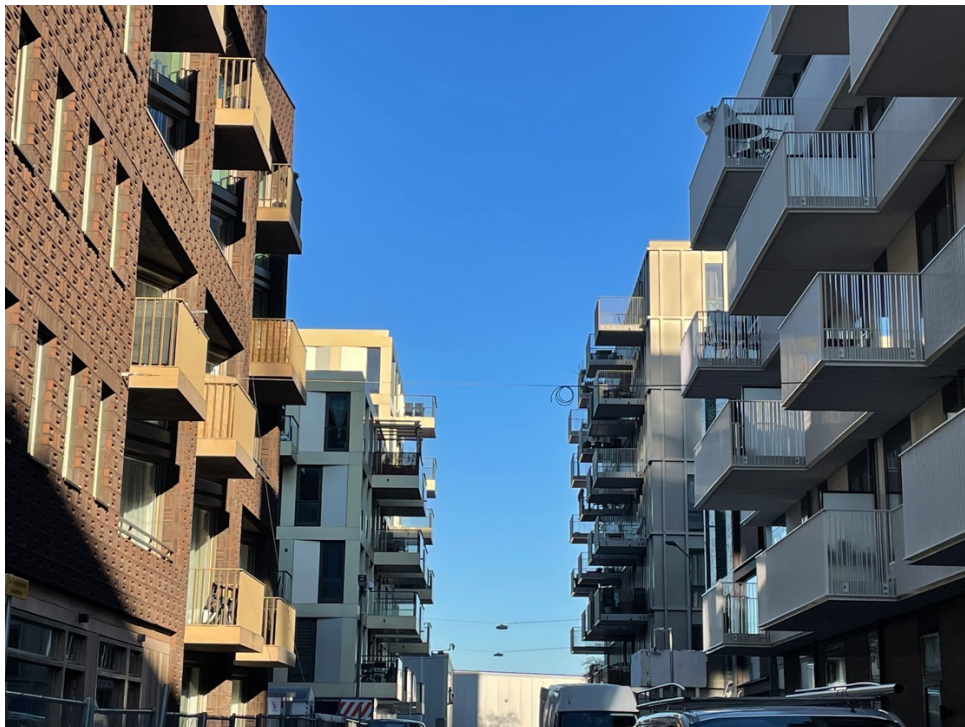
How would we characterize today's moment? (4) Amsterdam Buiksloterham 2022 © Anna Vos

Afterword 2022

I would add now, more than 35 years later, that not only the plans, but above all the buildings, the products of urban and architectural design themselves, that is the 'stones', need to be scrutinized. Only then the ways in which we appropriate the world around us in its material substances and capacities can be examined, beyond words and thoughts.
That would be particularly interesting, because today we are once again confronting a tendency to get bogged down in words, to name mainly social intentions and ambitions. City and architecture must be just, inclusive, healthy, safe et cetera. Buildings themselves are pluriform: all 'styles' are 'allowed'. Any discussion on architecture and city as tangible products is lacking. Even when it comes to sustainability, Hans van der Heijden notes, rhetoric prevails (Van der Heijden 2022). It is time to put the (processing of the) 'stones', the fabric of city and architecture back at the center.
With the images of realized buildings and public spaces, I want to make a first step to address this lack.

How would we characterize today's moment? (5) Amsterdam Pontsteiger Houthaven (arch. Arons & Gelauff) 2022 © Anna Vos

References

Barbieri, U. en Boekraad C. 1982 *Kritiek en ontwerp. Proeven van architektuurkritiek.* Nijmegen: SUN.

Barbieri, U. (red.) 1983 *Architectuur en planning. Nederland 1940-1980.* Rotterdam: uitgeverij 010.

Bentinck, S. en Vos, A. 1981. *Zedelijkheid en zelfbeheer. De huisvesting van alleenstaande vrouwen in Nederland 1850-1965.* Unpublished thesis, Technical University Delft Faculty of Architecture, 1981. Available at: anna@annavos.nl.

Berlage, H.P. 1918. Normalisatie in woningbouw. Rotterdam: W.L. & J. Brusse's Uitgevers Maatschappij.

Bervoets, L. 1982. Telt zij wel of telt zij niet. Een onderzoek naar de beweging voor de rationalisatie van huishoudelijke arbeid in de jaren twintig. Amsterdam: Sociologisch Instituut Universiteit van Amsterdam.

Boekraad, C. 1982a. Niet voor bezit en macht. Gesprek met W. van Tijen. In: Barbieri, U. en Boekraad C. 1982 *Kritiek en ontwerp. Proeven van architektuurkritiek.* Nijmegen: SUN. pp. 63-75 (Eerst gepubliceerd 1970/1971 *Wonen* nr. 7.)

Boekraad, C. 1982b. Van Stam tot Team X. Een gesprek met J. Bakema naar aanleiding van 'Bouwen '20-'40'. In: Barbieri, U. en Boekraad C. 1982 *Kritiek en ontwerp. Proeven van architektuurkritiek.* Nijmegen: SUN. pp. 86-101. (Eerst gepubliceerd 1972 *Wonen*.)

Boot, M. , Van Hamersveld I., Roding J. 1982. De 'rationele' keuken in Nederland en Duitsland. Achtergronden, ontwikkelingen en consequenties voor (huis) vrouwen. In: *Berlijn Amsterdam 1920-1940 wisselwerkingen* pp. 339-347.

Bos, A. e.a. 1946. *De stad der toekomst, de toekomst der stad. Een stedebouwkundige en sociaal-culturele studie over de groeiende stadsgemeenschap.* Door een Studiegroep onder leiding van Ir. A. Bos. Rotterdam: A. Voorhoeve.

Bouwen van woning tot stad. 1946 Zanstra, Giesen en Sijmons, Ir. A. Boeken, A. Komter, Arthur Staal, S. van Woerden. Amsterdam: Van Oorschot.

Casciato, M., Panzini, F. en Polano S. (red.) 1980 *Architektuur en volkshuisvesting Nederland 1870 - 1940.* Nijmegen: SUN.

Cohen, L. Ali en De Sitter, W. 1854. *Verslag van het 1ste congres over het Armwezen, gehouden te Groningen 26, 27 juni 1854.* Groningen.

De 8 en Opbouw. 1932. Nederlandsch Instituut voor Volkshuisvesting en Stedebouw. XXXV. Praeadvies van de Vereeniging Architectenkern "De 8" te Amsterdam en de Vereeniging "Opbouw" te Rotterdam over het onderwerp *De organische woonwijk in open bebouwing.* Te behandelen op een vergadering van het Nederlandsch Instituut voor Volkshuisvesting en Stedebouw op zaterdag 25 juni 1932 in "Het Nieuwe Huis" te Amsterdam.

De Mare, H., Vos, A. en Edhoffer L. 1986 Vrouwen en de stad. In: Edhoffer, L., De Mare, H. en Vos, A. 1986. *Vrouwen en de stad*. pp. 4-59. Translation in English (2022) available at anna@annavos.nl and at academia.edu.

De Woningwet 1902-1929. 1980 [1930]. Gedenkboek samengesteld ter gelegenheid van de tentoonstelling gehouden te Amsterdam 18-27 oktober 1930 bij het 12,5 jarig bestaan van het Nederlandsch Instituut voor Volkshuisvesting en Stedebouw. [Commemorative book compiled on the occasion of the exhibition held in Amsterdam October 18-27, 1930 at the 12.5 year anniversary of the Nederlandsch Instituut voor Volkshuisvesting en Stedebouw]. Amsterdam 1930. pp. 245-255 Herdruk in: Casciato, M., Panzini, F. en Polano S. (red.) 1980 *Architektuur en volkshuisvesting Nederland 1870 - 1940.* Nijmegen: SUN. pp. 104-108

Edhoffer, L., De Mare, H. en Vos, A. 1986 *Vrouwen en de stad deel 1*. Technical University Delft, Faculty of Architecture.

Edhoffer, L., De Mare, H. en Vos A. 1986 *Vrouwen en de stad deel 2. Tekstfragmenten.* Technical University Delft, Faculty of Architecture.

Frederick, C. 1928. De denkende huisvrouw. Nieuwe inzichten. Haarlem: H.D. Tjeenk Willink & Zoon. (First publication: Frederick, C. 1925.)

Goedkoope arbeiderswoningen (1936). Afbeeldingen van 28 projecten, ingezonden op de door de gemeente Amsterdam gehouden prijsvraag. 1936 [***Cheap workers houses (1936).*** Illustrations of 28 projects, submitted to the competition held by the municipality of Amsterdam]. Rotterdam: W.L &J. Brusse. Reprint: Ottenhof F. (red.) 1981.

Habraken, N. 1964. Het weefsel van de stad. Een aanloop voor een studie. *Forum* 1.

Habraken, N. 1966. Aap Noot Mies Huis. *Forum* 1.

Le Corbusier 1923. Vers Une Architecture. Paris: Editions crès.

Merkelbach, B. 1936. Een en ander over: De orienteering van de goede arbeiderswoning in verschillende bouwhoogten en haar centrale voorzieningen. In: Ottenhof, F. (red.) 1981. *Goedkoope arbeiderswoningen (1936).* Amsterdam: Van Gennep. pp. 17-20.

Oud, J.J.P. 1917. Het monumentale stadsbeeld. *De Stijl* 1917 (9-7-1917). (De Stijl 1917-1920 reprint 1968. Athenaeum Amsterdam, Bert Bakker Den Haag, Polak & Van Gennep Amsterdam)

Oud, J.J.P. 1918. Bouwkunst en normalisatie bij den massabouw. *De Stijl* 1918 (febr-mrt 1918). (De Stijl 1917-1920 reprint 1968. Athenaeum Amsterdam, Bert Bakker Den Haag, Polak & Van Gennep Amsterdam)

Oud, J.J.P. 1919. Architectonische beschouwing. *De Stijl* 1919 (mei 1919). (De Stijl 1917-1920 reprint 1968. Athenaeum Amsterdam, Bert Bakker Den Haag, Polak & Van Gennep Amsterdam)

Ottenhof, F. (red.) 1981. *Goedkoope arbeiderswoningen (1936).* Amsterdam: Van Gennep

Roberts, H. 1850. *The dwellings of the labouring classes.* London.

Roland Holst, H. 1977 [1902] *Kapitaal en arbeid in Nederland.* Nijmegen: SUN.

Schade, C. 1981. Woningbouw voor arbeiders in het 19de eeuwse Amsterdam. Amsterdam: Van Gennep.

Stam, M. 1936. Het vraagstuk der arbeiderswoning in verband met de steeds veranderende grootte der gezinnen. In: Ottenhof, F. (red.) 1981. *Goedkoope arbeiderswoningen (1936).* Amsterdam: Van Gennep.

Standaardplattegronden 1948. Rapport van de Studiegroep Efficiënte Woningbouw, uitgebracht door de Technische Commissie. [**Standard Floor Plans** 1948. Report of the Efficient Housing Study Group, issued by the Technical Committee]. *Bouw* 18 december 1948.

Standaardplattegronden voor eengezinsrijenhuizen 1952 (tweede editie). Rapport van de Studiegroep Efficiënte Woningbouw, uitgebracht door de Technische Commissie. [**Standard floor plans for single-family row houses** 1952 (second edition). Report of the Study Group on Efficient Housing Construction, issued by the Technical Committee]. *Bouw* 16 februari 1952.

Standaardplattegronden meergezinshuizen 1952 (tweede editie). Rapport van de Studiegroep Efficiënte Woningbouw, uitgebracht door de Technische Commissie. [**Standard floor plans multi-family houses** 1952 (second edition). Report of the Study Group on Efficient Housing Construction, issued by the Technical Committee]. *Bouw* 20 december 1952.

Stemmen uit de praktijk van het wonen. [Voices from dwelling practices] 1962. *Bouw* no 21.

Strukturalismus eine neue Strömung in der Architektur. 1976. *Bauen + Wohnen* januar.

Studiegroep Woningarchitectuur 1943 *Richtlijnen voor woningarchitectuur.*

Studiegroep Woningarchitectuur - Kerngroep 1944. *Architectenprogramma voor Woningbouw.* Z.p. Typoscript. This piece is included in: Studiegroep Woningarchitectuur - Kerngroep 1955: pp. 52-83. Reprint of (incomplete) typescript in: Edhoffer, L., De Mare H. and Vos A. 1986 Vrouwen en de stad deel 2 Tekstfragmenten. Technical University Delft Faculty of Architecture.pp. 149-160.

Studiegroep Woningarchitectuur – Kerngroep 1946. Nota van de Nederlandse architecten over den na-oorlogschen woningbouw. *Bouwkundig weekblad 1947. pp 91 e.v..* Reprint in: Edhoffer, L., De Mare H. en Vos A. 1986 Vrouwen en de stad deel 2 Tekstfragmenten. Technical University Delft Faculty of Architecture pp. 145-148.

Studiegroep Woningarchitectuur - Kerngroep 1955. *Gronden en achtergronden van woning en wijk. Een bijdrage tot het "herstel" van de "vernieuwing" op het gebied van het wonen.* [*Grounds and backgrounds of housing and neighborhood. A contribution to the "recovery" of the "renewal" in the field of housing].* Amsterdam: G. van Saane "lectura architectonica".

Tafuri, M. 1978 [1973]. Ontwerp en utopie. Architektuur en ontwikkeling van het kapitalisme. Nijmegen: SUN.

Taverne, E., Wagenaar, C. en de Vletter, M. 2001. *J.J.P. Oud Poëtisch functionalist 1890-1963 Compleet werk*. Rotterdam: NAI uitgevers.

Ter Horst, J., Theunissen, K. en Vos, A. 1987. *Normering in de woningbouw in relatie tot veranderende woon- en leefvormen.* [*Standardization in housing construction in relation to changing housing and living arrangements*]. Research commissioned by the Directorate General of Public Housing. Directorate for Research and Quality Assurance and of the Emancipation Council.

Van Boven, W. (red.) 1919. *50 typen album.* Uitgave van het Departement van Arbeid.

Van der Heijden, H. 2022 Duurzame architectuur blijft hangen in retoriek. *NRC* 12 augustus 2022.

Van der Waerden, J. 1918. Praeadvies voor het Woningcongres, gehouden op 11 en 12 februari 1918 te Amsterdam.

Van der Woud, A. 1983. *CIAM Volkshuisvesting en stedebouw.* Catalogus bij de gelijknamige tentoonstelling. Delft/Otterlo: Delft University Press/Rijksmuseum Kröller Müller.

Van Eesteren, C. 1923. Stedebouwkundige opmerkingen. Verslag voor de Prix de Rome 1923. Herdruk in: Casciato, M., Panzini, F. en Polano S. (red.) 1980 *Architektuur en volkshuisvesting Nederland 1870 - 1940.* Nijmegen: SUN. pp. 101-104

Van Eesteren, C. 1925. Moderne stedebouwbeginselen in de practijk. *De Stijl* 1925 (10/11).

Van Eijck, A. 1959 Het verhaal van een andere gedachte. *Forum* 1959 (7).

Van Eijck, A. 1960/1961. De milde raderen van de reciprociteit. *Forum* 1960/1961 (6/7).

Van Eijck, A. 1962. De straling van het configuratieve. *Forum* 1962 (3).

Van Gijn, A. en Schelling, B. 1902. *Leidraad bij het samenstellen van eene verordening, zoals bedoeld in art. 1 der woningwet.* Alfen (ZH).

Van Hasselt, J. en Verschoor, mr. L. 1890. *De arbeiderswoningen in Nederland.* Uitgave Maatschappij tot Nut van 't Algemeen.

Van Moorsel, W. 1982. Goed Wonen? Tijdschrift voor Vrouwenstudies 1982 (2): 207-231.

Van Tijen, W. & H.A. Maaskant en J.A. Brinkman & J.H. Van den Broek. 1941. *Woonmogelijkheden in het Nieuwe Rotterdam.* Rotterdam: W.L & J. Brusse. Gedeeltelijk

opgenomen in: Casciato, M., Panzini, F. en Polano S. (red.) 1980 *Architektuur en volkshuisvesting. Nederland 1870-1940.* pp. 169-173.

Verslag aan den Koning over de vereischten en inrigting van arbeiderswoningen [*Report to the King on the Requirements and Design of Workers' Housing*] door eene commissie uit het Koninklijk Instituut van Ingenieurs. 1855 's Gravenhage: Gebroeders J.&H. Van Langenhuysen.

Weeber, C. 1979 Formele objectiviteit in stedebouw en architectuur als onderdeel van rationele planning. In: *Plan* 1979 (11): 26-35.

Wentink, D.E. 1915. *De bouwverordening en het woningvraagstuk.* Utrecht.