İSTANBUL TECHNICAL UNIVERSITY ★ INSTITUTE OF SCIENCE AND TECHNOLOGY

HYBRID HOUSING IN THE EASTERN DOCKLANDS OF AMSTERDAM

An Insight to Typological Housing Design in the Netherlands

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Pınar SEYREK, Architect

502981009

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Supervisor (Chairman): Prof. Dr. Hülya YÜREKLİ

Members of the Examining Committee Prof. Dr. Handan TÜRKOĞLU

Prof. Dr. Semra AYDINLI

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AMSTERDAM'IN DOĞU LİMAN BÖLGESİ'NDE MELEZ KONUT OLUŞUMLARI

Hollanda konut mimarisine tipolojik bir bakış

YÜKSEK LİSANS TEZİ
Mimar Pınar SEYREK
502981009

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SUMMARY

This study is concerned with recent developments in the area of housing design in the Netherlands. The emphasis is given to the typological inventiveness of the Dutch architects and planners. The aim of the study is to show the important role systematic typological research plays while designing homes that would answer the contemporary demands of the rapidly changing society. Typological variety of the existing housing stock in the Netherlands and the possibilities they offer for further typological innovation is found worth investigating. Introduction talks about the place housing design has in architecture and suggests that drawing inspiration from the Modern inheritance has become a regular method in the Netherlands for creating interesting housing designs. In the second chapter, a wide definition of type and typology is made in order to reveal the meaning typologies have in housing design. The different meanings and uses of typologies in architecture from the first time they entered the course is discussed. The third chapter is concerned with the way typologies play a part in housing design today so as to create and strengthen communication during design processes. In this chapter, types are inquired into as signs like semiology explains them. Following this, a group of well-known Dutch housing typologies are introduced. In the fourth chapter, the concept of hybridity is thoroughly investigated as one of the most fruitful ways to process the known typologies so as to reach a desired new quality. One of the most recent and famous housing developments in the Netherlands, Eastern Docklands of Amsterdam, is chosen as an example to the concept of hybrid housing.

AMSTERDAM'IN DOĞU LİMAN BÖLGESİ'NDE MELEZ KONUT OLUŞUMLARI:

Hollanda konut mimarisine tipolojik bir bakış

ÖZET

Bu çalışma, Hollanda'da konut tasarımına ilişkin son gelişmeler ile ilgilidir. Hollandalı mimar ve plancıların konut tipolojisi konusundaki yaratıcılığına önem verilmiştir. Çalışmanın amacı, hızla değişen topumun taleplerine karşılık verecek konutları yaratmada sistematik tipolojik araştırmanın oynadığı önemli rolü göstermektir. Hollanda'daki konut stoğunun tipolojik çeşitliliği ve bunun yeni tipolojlerin yaratılması için sunduğu olanaklar araştırılmaya değer bulunmuştur. Giriş bölümünde, konut ve tasarımının mimarlıktaki yerinden bahsedilmekte, Hollanda'da yeterince ilginç konut tasarımları yaratmak için Modern mimarlık mirasından ilham almanın sıkça rastlanan bir yöntem olduğuna işaret edilmektedir. Konut tasarımında tipolojilerin ne değer taşıdığının araştırılması için ikinci bölümde tip ve tipoloji kavramlarının geniş bir tanımı yapılmaktadır. Mimarlıkta bahsi ilk geçtiğinden beri tip ve tipolojinin ne tür anlamlar edindikleri, ne şekillerde kullanıldıkları irdelenmektedir. Üçüncü bölüm, tipolojilerin bugün tasarım süreci içinde iletişimin sağlanması için sahip oldukları önemden bahsetmektedir. Bu bölümde tipler, semiyolojide anlatılan 'işaret'ler gibi kavranmaktadır. Bunu takiben bir grup bildik Hollanda konut tipolojileri tanıtılmaktadır. Dördüncü bölümde, melezlik konusu etraflıca incelenerek, bildik tipolojilerin istenen yeni bir kaliteye ulaşmak üzere melezlenmesinin gündemde olan bir yöntem olduğuna dikkat çekilmektedir. Amsterdam'ın Doğu Liman Bölgesi'ndeki yeni konut oluşumu, melez konut tipolojilerine örnek olarak seçilmiştir.

1. INTRODUCTION

> "Everything must have an antecedent. Nothing, in any genre, comes from nothing, and this must apply to all inventions of man."
>
> *Quatremére de Quincy 1825*

Architecture, too, is an invention of man. In fact quite an old one. "Once man, in his primitive state, was forced to find shelter to protect himself from the forces of nature, he first chose a cave. But later as the darkness and foul air surrounding him made his stay unbearable, he wanted to make himself a dwelling that protects but does not bury him. Some fallen branches in the forest were the right material for this purpose; he chose four of the strongest, raised them upright and arranged them in a square; across their top he laid four other branches; on these he hoisted from two sides yet another row of branches which, inclining towards each other, met at their highest point. He then covered this kind of roof with leaves so closely packed that neither sun nor rain could penetrate. Thus, man was housed" [Laugier 1977]. Today, subjects which architecture is concerned with might seem very wide, but maybe it is not exactly so. As Laugier claims, it all has its roots in the need for a shelter, thus a dwelling.

Apart from being the oldest, dwellings (housing) in today's architecture are significant for the fact that they are quantitatively superior to the rest. In many developed countries housing is the primary assignment for architects and planners. Initiated by the forces of industrialisation, urbanisation -namely concentration of populations- creates challenging problems to be tackled each time again. Populations flowing unstoppably to urban areas, demand a decent place to dwell. Attempts are made by governments to answer this demand both quantitatively and qualitatively. Under such circumstances a house is made to become something more than four walls with a roof on top. It is thus evident that more and more regulations are to be made in order to answer the need in the wished way. So, growing population and more strict rules are, we could say, two interrelated factors that make housing such a constant challenge for the architects of the developed world.

Fig. 1-1 The primitive hut

While urbanisation in the less developed parts of the world is thriving maybe even more intensively, there seems to be very little regulated in terms of housing to meet the need. The actual production of housing is none of governments' concern. This might seem fair, but they also act insufficiently in arranging the necessary rules and regulations to meet the current demands which in the end would/ should manipulate others to fulfil this task. People have an absolute need to reside. Architect, in many countries in the world, not forced neither with high demands nor by challenging regulations, repeats the same old patterns, ordinary economic solutions, well-known types time and time again; regardless of context, time or needs.

On the contrary the Netherlands, which is, at times ironically, referred to as one of the most designed and planned countries in the world, makes one think: prototypes for housing are not so bad after all, as long as there is a constant striving for innovation. Prototypes at first sight do recall an architecture that is strict and barren however, it is not necessarily so. If taken not as perpectiveless dogmas but as representatives of condensed sources of ideas, prototypes and known typologies can open wide doors for new ideas and qualities. Many critics in their latest works accentuate themes like "hybridisation, sampling, montage, recycling, and transformation" as new directions or latest trends [Ibelings 1999, Oostenbrink 2000, Idsinga 2000, Buch 1993]. These are actually the ways and means to produce fresh

ideas and approaches by processing 'the already known'. Unsurprisingly, they are all Post-modern concepts which were reasoned by another post-modern device: the mass publication of architecture. As descriptions and commentaries on architectural feats filled the pages of books and magazines in greater quantity than ever, semiotical significance of the already known in the form of typologies, came to the fore. The more they were talked about, what they refer to became more definite. They became signs for certain concepts and they were manageable. It became easier and favourable to every practicing architect to draw attention to what 'others' did or have been doing. At this point, emerging of concepts like hybridisation and montage were inescapable.

Between 1980-1987, under leadership of Rem Koolhaas, Office for Metropolitan Architecture (OMA) made a design for a former shipyard in Amsterdam known as the IJ-plein. This design is accepted to be a milestone in the housing design tradition of the Netherlands, for it manifests the practicality of "using familiar basic typologies drawn from the history of modernism" [Buch 1993, p. 378]. Today, a large number of offices get their inspiration from Modernist principles and types and make us come to see what we see today as Dutch architecture: an architecture of reconsideration.

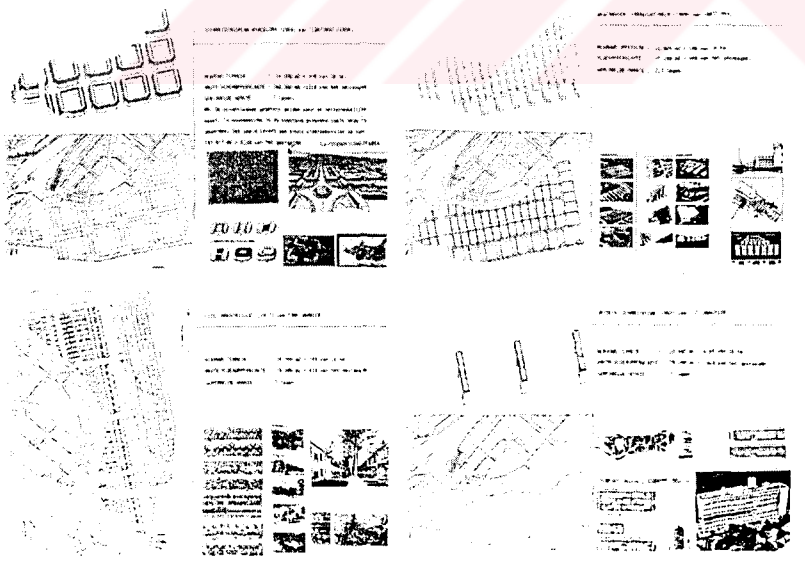


Fig. 1-2 Using of Modern prototypes for a new design for the IJ-plein.

In this context, present study is concerned with the significance of 'the already known' as a source of information and inspiration in the domain of housing design.

2. TYPE AND TYPOLOGY

2.1. Definition

Main Entry: **¹type**
Pronunciation: 'tIp
Function: *noun*
Usage: *often attributive*
Etymology: Middle English, from Late Latin *typus,* from Latin & Greek; Latin *typus* image, from Greek *typos* blow, impression, model, from *typtein* to strike, beat; akin to Sanskrit *tupati* he injures and probably to Latin *stupEre* to be benumbed
Date: 15th century
1 a : a person or thing (as in the Old Testament) believed to foreshadow another (as in the New Testament) **b :** one having qualities of a higher category **:** model **c :** a lower taxonomic category selected as a standard of reference for a higher category; *also* **:** a specimen or series of specimens on which a taxonomic species or subspecies is actually based
2 : a distinctive mark or sign
3 a (1) **:** a rectangular block usually of metal bearing a relief character from which an inked print can be made (2) **:** a collection of such blocks <a font of *type*> (3) **:** alphanumeric characters for printing <the *type* for this book has been photoset> **b :** typefece <italic *type*> **c :** printed letters **d :** matter set in type
4 a : qualities common to a number of individuals that distinguish them as an identifiable class: as (1) **:** the morphological, physiological, or ecological characters by which relationship between organisms may be recognized (2) **:** the form common to all instances of a linguistic element **b :** a typical and often superior specimen **c :** a member of an indicated class or variety of people <the guests were mostly urban *types* -- Lucy Cook> **d :** a particular kind, class, or group <oranges of the seedless *type*> <leaders of the new *type*... did England yeoman's service -- G. M. Trevelyan> **e :** something distinguishable as a variety **: sort** <what *type* of food do you like?>

In general, "type" is understood —according to the definitions given in the *Merriam-Webster Dictionary*— as of belonging to a category with a distinctive character. In its wide ranging meanings, the word is closely related to themes such as; kind, mold, nature, sort, species, description, variety.

From the 18th century on, it has been used as a classifying tool in architecture as well as in other positive sciences[1]. The notion of type entered the architectural discourse based on this meaning first in the *Encyclopédie Méthodique d'Architecture* (1825) of Quatremère de Quincy [Leupen 1997, p. 133; Vidler 1998a]. His intention was to define type metaphorically. He describes type as follows:

> "... all things, in spite of subsequent changes, have conserved, always visibly, always in a way that it is evident to feeling and reason, this elementary principle, which is like a

[1] For instance, Linnaues' famous plant classification system and Cuvier's "branches" in the animal kingdom [Vidler 1998a, p. 450].

> sort of nucleus about which are collected, and to which are co-ordinated in time, the developments and variations of forms to which the object is susceptible. Thus we have achieved a thousand things in each genre, and one of the principal occupations of science and philosophy, in order to understand the reason for them, is to discover their origin and primitive cause. This is what must be called "type" in architecture, as in every field of inventions and human institutions" [Quatremère De Quincy 1998, pp. 618-619].

So the "type" is the origin, the cause, the principle of a thing; of anything. A. Vidler, in his essay *The Idea of Type* where he examines the transformation of the academic ideal of type during Enlightenment, suggests that Quatremère de Quincy, in his encyclopaedia, attempts to establish the original and pure meaning of type as 'the root of', and continues; "the architectural type was at once 'pre-existent germ', origin, and primitive cause. Thus the type of the temple, and thereby of all architecture was the primitive hut."

Further, he tries to settle the confusion and establish a difference in the definition of *type* and *model*. He is firmly against those who are inclined to confound these two concepts and to imitate type (the primitive hut) mechanistically, turning it into a literal model. He sets the difference between these two concepts as follows:

> "The model, as understood in the practical execution of art, is an object that should be repeated as it is; the type, on the contrary, is an object after which each (artist) can conceive works of art that may have no resemblance. All is precise and given in the model; all is more or less vague in the type" [Quatremère De Quincy 1998, p. 618].

Such discussions around the subject whether to apply pure imitation or original principles had taken place earlier. For example, in his *Essai sur l'Architecture* (1753), Laugier had established the model of the hut and accordingly explained what in architecture is essential and what not [Laugier 1977]. The elements of the primitive hut here, are considered to be essential and what was added to it afterwards was a result either of necessity or of caprice. He thinks the parts which were a result of necessity led the way to licence and, ones that are of caprice to fault. Using the primitive hut in such a way to evaluate works of architecture, suggests that it is the origin of it all. Laugier laid the foundations to what Quatremère de Quincy later named the "type."

"Typology," in the meantime, is defined as "study of or analysis or classification based on types or classification." In the domain of architecture a coherent system of

interrelated types is often referred to as architectural typologies. As to point to the diversity of those interrelations W. J. Mitchell says:

> "Types may be divided into subtypes by specific additional essential properties. Thus, for example, we might divide classical porticos into Doric, Ionic and Corinthian subtypes. Conversely, we may generalise type definitions by deleting properties, as when we generalise from squares to rectangles, and from rectangles to quadrilaterals. In general, then, we may construct hierarchies of subtypes within subtypes. Where such a hierarchy spans a universe of discourse, it provides a comprehensive classification scheme for elements in that universe. Such schemes are often referred to as typologies" [Van Leusen 1994, p. 23].

A quite different notion of typology than the foregoing one, which briefly is the 'study of types', is that it can also be the 'study of *a* type'. Here, the investigation and interpretation of one type is the aim, rather than the classification and description of many [Symes 1994, p. 166]. This we could say is the elaboration of the concept of type by Quatremère de Quincy in practice: "all is more or less vague in the type," and therefore is ready for further interpretation.

2.2. General Development of the Idea of Type

2.2.1. Nineteenth Century

During the same period as Quatremère de Quincy, another French architect, J.N.L. Durand, was busy with preparing his own interpretation of type. He was writing his book entitled *Précis des Leçons d'Architecture donées a l'école polytéchnique* which was later to become a reference book for many years to come. It was a manifestation of his theory which "stressed the productive capacity of rules and elements according to program inductively defined" [Vidler 1998a, p. 451]. His method of expressing this theory was via subdividing architecture to its irreducible elements which would then built up to form complete ensembles. He distilled these elements from a series of plans that illustrated the known building types which were classified according to their kinds, arranged in order of degree of likeness and drawn to the same scale. This comparative method supposedly enabled him to arrange his specimens from the most primitive type to the refined version. Such a systematic method of typology ended up being a reference hand book for *polytechnique* engineers. Using this book they could quickly design better buildings. It worked like a "catalogue of empty forms," as Leupen [1997, p. 133]

calls it. The challenge as an architect was only to know in which combination these forms had to add up to each other.

Further, Leupen says that Durand conceived the type, unlike Quatremère de Quincy, as a fixed example, which was at the same time independent of its historical context. His typology consisted of immutable elemental forms —and sometimes their ensembles— and it offered itself for industrialised production of architecture. Looking at such imitative use of fixed elements and sometimes complete ensembles of elements, we could conclude that Durand's interpretation of typology suggested type being used as a model.

2.2.2. Modern Period

By the arrival of modern period, typology gained a complete other meaning. As historical *forms* were rejected to be the key to beauty and order, modern architect turned himself from such architectural forms to analogies of nature or of industrial production. Circumstances brought together with industrialisation required an efficient method in designing in order to keep up with the speed with which buildings had to be erected. In order to supply such requirements a stream in architecture named "functionalism" emerged. Functionalists not only dealt with separating and organising of different functions, but they also worked on determining (minimum) dimensions necessary for certain activities. Such an approach later led the way to declare that form is only determined by function[2], and old principles are no more applicable [Leupen 1997, p. 85]. The so-called minute-size analyses consisted works of translating function into form and space. For this purpose, they needed to use mathematical methods. From here on, designing was more a matter of computing than a matter of composing.

Typology in this context thus, was categorical. It did not imply any certain forms, rather presented results of systematic dimensional research which then helped derive certain configurations. As function supposedly had the priority, categorisations had to be made accordingly. *Bauentwurfslehre* by Neufert [1992] is an example of such typology where buildings are classified according to their functions; hotels, restaurants, housing, libraries etc. In each chapter, we find several

[2] "Form follows function" served a long time as a credo which L. Sullivan had actually said to refer to the relationship between form and an appropriate structure [Leupen 1997, p. 216].

alternatives of combinations which are offered as handy references. These fragments, needless to say, were all derived from a system of (minimum) dimensions.

During the modern period, type kept on being accessible for the rationalisation of architecture, however, not by setting up a rooting in well-known architectural principles, but in these *other* first principles. Design process had become a successive combination of mathematical methods of analysis and intuition.

2.2.3. Postmodern Period

Following the article *On the Typology of Architecture* by C.G. Argan, in the sixties, the *type* became a favourite topic amongst theoritians once again. With the advent of the post-modern period, the idea of *type* was one of many that were to be revised. In his article Argan goes back to the definition Quatremère de Quincy gave in the 18th century. He tends to give a further explanation to what Quatremère de Quincy had pointed out by describing the difference between *type* and *model*. The vagueness of the type ("all is more or less vague in the type"), he claimes, comes a "regressive generation process" [Argan 1996, pp. 243].

> "In the process of comparing and superimposing individual forms so as to determine the 'type,' particular characteristics of each individual building are eliminated and only those remain which are common to every unit of the series. The 'type' therefore, is formed through a process of reducing a complex of formal variants to a common root form. If the 'type' is produced through such a process of regression, the root form which is then found cannot be taken as an analogue to something as neutral as a structural grid. It has to be understood as the interior structure of a form or as a principle which contains the possibility of infinite formal variation and further structural modification of the 'type' itself."

With this definition he claims that the type is never *a priori* formulated. It is a result of superimposing of a series of buildings which have an obvious formal and functional analogy. Through this reduction of existing works of art, a definite historical form is no longer a condition for a new design, because the past is then neutralised. The "root form," which is then the outcome of this regressive process, is asserted to have the possibility of infinite formal variation and further structural modification. Invention begins at this point. So it seems, that the root form is an intermediate step which divides the complete typological design process into two. Leupen [1997, p. 138] names these two separate phases, the process of type

formation and the moment of form specification. The relationship which a typological design has to the past is the process of type formation and; to the present, is the moment of form specification. From the moment of form specification on, the past only has the significance of being the maker of the root form; nothing more.

One other remarkable point later in the same article, is Argan's way of associating type and typology in the process of methodological design. He thinks that there is a close, rather parallel, relationship between the two. Although disputable, he assumes that the working process of a designer is, successive series of choices being made. These choices can be grouped in three main categories: choices about the complete configuration of buildings, major structural elements and, decorative elements. [Argan 1996, p. 244] According to him, these three stages in the process are at once the main categories that typologies fall under. In his eyes, such structuring of typologies provide a guide for architects to follow. Under the light of studies done in the area of design methodology, we could argue against the validity of such perception of one-way design process. However, mentioning of the relationship between categories of typologies and design thinking is still worth the attention in a sense that it opened the discussion to be carried on in the following years.

Argan's rough contemporary A. Colquhoun is another theorist who paid a great deal of attention on the subject typology as early as 1967. His article entitled *Typology and Design Method,* is claimed to be one of the earliest postmodern writings on typology in English [Nesbitt 1996, p. 248]. As it is qualified to be "a classical of the postmodern period," it would not be a surprise to see that his main argument is the invalidity of modernistic design methods which totally reject past solutions, so to say, typologies. He mainly focuses on the functionalist approach to the design process and argues; mathematical methods of analysis and classification are solely never enough to determine the final form of any design product. No matter until how far these analytical techniques are forced to be used, there is always a moment when the designer has to make voluntary decisions so as to realise his intentions about the final form of his creation. And this step of action is explained —as accepted also by designers of the modern period— by theories of intuition and free expression. The point of disagreement between him and the modernists is not the

existence but, the notion of such concepts. Based on the ideas of T. Maldonado, he suggests that intuitive creation is a process of adapting forms derived either from past needs or from past aesthetic ideologies to the needs of the present. As seen in this statement, as well as in the rest of his article, Colquhoun [1996, pp. 250-257] refers to past *forms* when he talks about the knowledge of past solutions. We can explain this by examining his understanding of past influence. Basing his theory on the ideas of E.H. Gombrich, he suggests that forms convey meanings. This happens by the unconscious mind associating meanings with a certain form. This does not necessarily mean however, that there is a fixed, immutable relationship between a form and its meaning. It constantly changes, or in other words, transforms. He postulates that this transformation happens through a process of excluding of iconic representational elements, which presumably shall enable one to be aware of the potentiality of forms regarding to meaning. Shortly, Colquhoun sees typologies as problem-solution complexes which resign in the unconscious mind of a designer. Because of their properties regarding to meaning, even if the designer assumes he is free from them, by doing so, he would only lessen his chance for better communication.

> "From the middle of the 18th century, two distinct typologies have informed the production of architecture. ... The first ... proposed that a natural basis of design was to be found in the model of the primitive hut. The second ...proposed that the model of architectural design should be found in the production process itself. ... In these two typologies, architecture, made by man, was being compared and legitimised by another "nature" outside itself. In the third typology, as exemplified in the work of the new Rationalists[3], however, there is no such attempt at validation" [Vidler 1998c, p. 13].

Above, is a quotation from the celebrated article named *The Third Typology* (1976) by A.Vidler, which summarises the pedigree of theme typology in order to explain the emergence of a *third* one. He clearly states that the first and second typologies have their foundations in an external nature, and the point of significance for the third one is the accessibility of architecture itself to provide the basis for re-composition. The city fabric and its continuity have become the ultimate source of unity.

[3] Referred primarily to Aldo Rossi, Leon and Rob Krier.

> "The columns, houses, and urban spaces, while liked in an unbreakable chain of continuity, refer only to their own nature as architectural elements, and their geometries are neither scientific nor technical but essentially architectural. It is clear that the nature referred to in these recent designs in no more nor less than the nature of the city itself, emptied of specific social content from any particular time and allowed to speak simply of its own *formal* condition" [Vidler 1996c, p. 14].

Later in the same article Vidler concludes: although all three typologies have different natures as their locus of concern, they are similar in the way they are based on reason and classification as guiding principles. And such determinate character provide a fact for the legitimacy of design.

2.3. Typology of Housing

So far, we have examined type and typology in a general context in order to see the development of the concept in itself. Since the actual contents of this study is limited by the area of housing, we are now going to look at what significances there are in the particular in housing.

Housing in particular deserves a deeper research regarding typology because of its distinctive character when compared to other products of architecture. The exception of housing lies in the fact that it composes of many, rather small units with a more or less definite program, which are stacked on or liked to each other within a certain logic. Because it is subject to repetitions within itself and, in the course of time, it inevitably calls for concepts such as *type*, *prototype* or *model*. As R. Sherwood puts it: "housing lends itself for systematic typological study" [Sherwood 1978, p. 2].

There are numberless studies and publications of housing typology and they show extreme diversity in character as well as in methodology. At a very fundamental level we can talk about two different approaches towards housing typology: *representation-based typologies* and *precedent-based typologies*. [Van Leusen 1994, p. 28]. The difference is in what they are found upon. Representation-based typologies are systems of types which are implicit in representations of architectural form. The interpretation of type descriptions is specified in general terms, independently from any particular instances of these types. Some good examples of such typologies were developed in the Netherlands, such as the SAR method. They

applied widely between 1965-1980 with the intention to support architectural design in a direct way and were later put aside. As present study is interested in focusing on contemporary methods in housing design, we will not be considering this category any further.

Earlier in this chapter we have mentioned what interpretations there can be of precedents (see: section 2.2.2). Several examples of studies point to the diversity of precedents in the history of architecture. Agreed with Van Leusen who quotes from Collins: "today, the selection and adaptation of precedents not only should, but clearly does fill, a far greater role than it ever filled in the architecture of the past." [Van Leusen 1994, p. 19], henceforth, we shall refer only to architectural precedents when we speak of precedents in the context of precedent-based typologies.

We can talk about two major categories within the so-called precedent-based typologies:

2.3.1. Contextual Housing Typology

First category is of Italian and French typological research groups and it aims at exploring the relations of particular cases with urban context. It comprises of concrete analyses of housing projects aimed at revealing their cohesion with the urban fabric. In these analyses, the emphasis is laid on the development of cities in relation to used types. Such publications do not intend to construct a full system of typology but, only to stress on the method of application of a type in a concrete situation. With the help of many analysis drawings, it is demonstrated how a part of the city is built up with housing and here how applied types are transformed and deformed. The examples given here are always specific, only the methodology, which is especially important for the analysis of existing projects, has a general applicability.

2.3.2. Encyclopaedic Housing Typology

The second category, diametrically opposite to the first, comprises of works that try to give an over view of housing typology in a more categorical manner. It is basically of German and American researchers. Here, greater emphasis is put on building up a complete classification. It does not accept specificity of cases, rather

tries to fit every possible object into one inclusive system. One characteristic example of such typology is of Helmut Sting. In his book called *Grundriss Wohnungsbau,* he makes an attempt to establish this inclusive system in which every existing and future housing project should be able to fit. He takes access principles as the locus of his classification and makes up an exhausting list of access types in sections and subsections. He gives a picture of the types by using floor plans and occasionally sections of existing projects along with a short verbal description. According to Van Leusen: "Sting presents a system of types at one particular level of the spatial organisation of the complex residential building. He recognises that residential buildings can be efficiently described in terms of repetitions of access units, rather than in terms of repetitions of dwellings. These access units are organised around corridors and vertical circulation axes." [Van Leusen 1994, p. 47] Today, as we notice that the production of housing rises with an accelerating speed — demanding high diversity— designers are forced to come up with new ideas and solution at every moment. Under these circumstances it becomes clear how naïve it is to think of the possibility to. make up the classification Sting intended to make.

Another example for encyclopaedic housing typology is Roger Sherwood's *Modern Housing Prototypes* (1978). This study "presents three separate systems of types at distinct levels of spatial organisation" [Van Leusen 1994, p.49]: A vague system of types in the ordering of thirty-two prototypical precedents; a system of building types, apparently at the level of access units; a system of unit types, apparently at the level of the individual dwelling. Both the system of building types and the system of unit types are described by the help of a variety of precedents illustrated mostly with plan drawings.

2.4. Conclusion

Looking at such a wide variety of definitions of and approaches we have revealed the ambiguity and vagueness of the idea of type. As the "science of classifying in types" [Salomons and Leupen 1991, p. 23], typology basically is means for humans to understand things and later to be able to make use of them.

3. TYPOLOGY IN COMMUNICATION

This chapter is concerned with the way typologies play a part in housing design today, so as to create and strengthen communication during design processes; both in written and spoken languages. Let it be used in an article in an architectural publication, or during the presentation of a new project, or even in a bit of conversation within a design team, typologies help people express and understand what that they are dealing with. They function more or less as *fixed entities*, the contents of which are *known* to a certain extent by different parties. As one speaks of a certain typology, it is the aim that the others get an immediate picture of what is being talked about. It is like a coded message and the question is, whether or not the message gets through to the other side as intended.

In this context, studying of typology becomes closely related with theories of communication; and within communication, with theories of linguistics and semiotics. Semiotics is the study of signs; signs that are tools to conduct messages from one-another. And when we speak of typologies being codes in messages, the question is whether types can be referred to as signs, or not? If the answer to this question was yes, then could the evolution theories around other systems of signs (for example language) also be applicable for a system of types in housing? Like in the evolution of a language, could certain types be born, and in proportion to their acceptance in time, be forgotten about or develop further to make new ones?

Before answering these questions about typology as a system of signs, we shall now take a brief look at a branch of study within linguistics that stands at the centre of general communication discussions and establishes a relationship between typology and language: semiotics.

3.1 Semiotics

The two terms *semiotics* and *semiology* literally refer to the same thing: "the study of signs." The existence of two different words for the same concept is because the study of signs was founded by Ferdinand de Saussure (1857-1913) in Switzerland and Charles Pierce (1839-1914) in the USA simultaneously and without the knowledge of each other's work. They named their creation *semiology* and *semiotics* respectively, coming from the root of the Greek word *semeion*[1][Lacey 1998, p. 56, Erkman 1987, p. 28]. Like many others that follow them, models of Pierce and Saussure are based on three elements: the sign, what it refers to, and its users.

For Pierce, these three elements form a triangle in which each is closely related and can be understood only in terms of the other two. According to his definition, the sign is basically the physical form that stands for something other than itself —the *object*. And the effect it creates in the mind of someone is the *interpretant*. When one of the three points of the triangle changes, the meaning changes [Fiske 1990, p. 41-42].

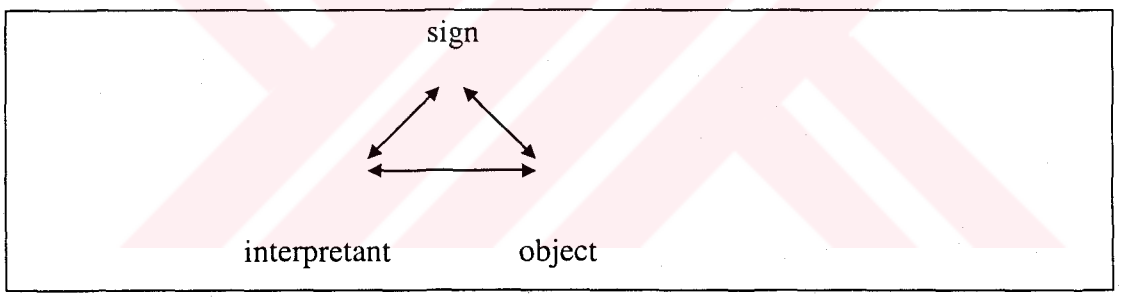


Fig. 3.1 Pierce's elements of meaning

Though based on the same three elements, Saussure's notion of meaning is a little different than Pierce's. At the heart of his model stands the study of language —how it evolves and its influence on our perception. He suggests that a sign consists of its physical form and an associated mental concept, and that this concept is in its turn an apprehension of external reality. So, the sign is the sum of two things: a *signifier* and a *signified*. Signifier is the perception of the sign's physical form which may be material, acoustic, visual etc. Signified, on the other hand, is the mental concept we

[1] The word *semeion* was first used in the meaning of symptom in medical sciences. For example, if there is an injury in your stomach, you get a pain. Here, the pain is not the disease itself but only a sign that refers to the real disease [Erkman 1987, p. 28]

learn to associate with that object. The relationship between the sign and its referent is the signification [Lacey1998, p. 57].

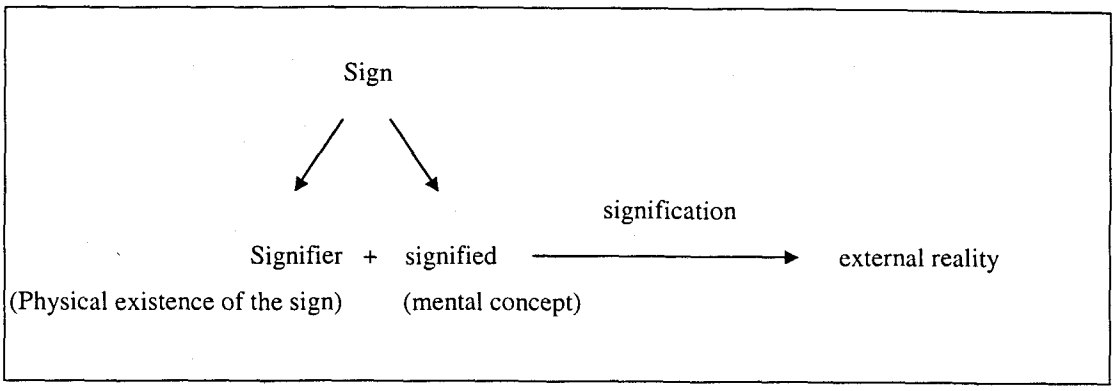


Fig. 3.2 Saussure's elements of meaning

The last one of the three elements —the users— is important at the point where a sign touches reality because this relation can only be attained through concepts of the people who use it. Therefore the cultural context in which the meaning of a sign is percepted has direct consequences on the degree of success in communication.

Fig. 3.3 "This is not a pipe" by Magritte 1928-29.

The famous painting of the Belgian artist Magritte is a striking example to what semiotics is about. This painting consists of a perfect picture of a pipe and the following statement below it: "This is not a pipe." The artist is right because what we see above that statement is not really a pipe, but only a representation of it. It is a

painting serving to the purpose to evoke the same mental concept as a real pipe would. If we look at this case in Saussure's terms, the picture is the signifier and a wooden tool that is used to smoke tobacco is the signified. The combination of the picture and the concept together form the sign 'pipe'. Looking from a linguistic point of view, a similar set of relations is valid for the word 'pipe' as a sign. Here, the word 'pipe' which consists of the letters p/i/p/e, is in the place of the pipe picture — the signifier; and it evokes the same mental concept —the signified— as the picture.

Needless to say, both the signifier and the signified are products of a particular culture. It is obvious that the word 'pipe' evokes the mental concept of a pipe only in the case where the receiver has some knowledge of the English language. Similar to this, even with the assumption that the signifier 'pipe' is recognisable by both, the signifieds may possibly differ from each other, for members of different cultures.

3.1.1 (Architectural) Type as a Sign

Now that we have the basic insight to the study of signs, we can go back to the discussion that types in architecture can be seen as signs and that they can be used in conducting messages from one to another so as to bring communication about — communication that needs to take place while designing, presenting and criticising. All of typology serves to this purpose in all domains of architecture. Types constitute an important part of our vocabulary of the language we use in all discussions of architecture; sometimes in the form of drawings or schemes and sometimes as words. Our conversations are full of signs. Not only in simple terms of linguistics, but more. If we presume that the model of Saussure is applicable to the typology of architecture, then all of them must compose of a signifier and a signified. All kinds of drawing, sketches, schemas, diagrams, pictures, phrases and words are often used as signifiers of different types of signifieds such as ideas, concepts, layouts, functions, configurations, forms etc. Amongst all signifiers, a type in the form of a word is the handiest because it is easy to carry and to conduct. The practicality of words actually forms the basis of language. A word itself in any given language is never the thing it refers to but only a symbol (sign) for it. Instead of using or showing the actual object, it is easier to use some signs that refer to that object, especially in the case where the sign is a word, for it is the easiest to carry along [Erkman 1987]. It costs only a sound in the air or a few letters on the paper. Of course this is true only

if that word has reached the maturity where not much additional information (further explanation by other words, or by other kinds of communicatory tools such as sketches or pictures) is required in order to get to the intended meaning. This is matter of time and context.

Over a short period of time, when a sign is used within a small group with cultural integrity in a specific context, it is more likely to have a definite meaning. Under such circumstances one can talk of a 'real' meaning that a sign carries because the sign and the meaning are well attached to each other. This is how the speakers of the same language do understand each other by using standardised signs. On the other hand, signs cannot preserve the same meanings in the long run because together with the context, the users who negotiate the interpretation keep changing [Johansson 1993]. Thereby they find the suitable ground on which to acquire new meanings and shed old ones. These two seemingly controversial theories about communication by sign explain the very nature of languages —which are complex systems of signs— as evolutionary entities.

> "Vague signs, which can mean more than one thing, keep getting combined and recombined in indeterminate, novel ways. Speakers coping with specific environments favour some uses more than others. But in new environments they also combine concepts and create novel meanings. The process of creation and selection drives the evolution of language, and therefore of thought [Johansson 1993, p. 18]"

If architectural types can be seen as signs presented with different signifiers and signifieds of various forms, then they should also be going through such a process and evolve in time. Some should disappear, some should pop up, some should transform. It would be an ongoing process during which the number of types and the specificity of each type increases. In proportion to their acceptance by their users, each type would evolve from being vague towards being more definite. When their meanings become more fixed, they can be used as tools of communication. Because "when one creates a message out of signs and this message stimulates another to create a meaning for himself that relates in some way to the meaning the fore created, we say communication has taken place [Fiske 1990]."

3.2 Typology of Housing

In Chapter 2, we have taken a brief look at previously made typological studies and stated that typology in the domain of housing is and has been highly categorical. Most of the time, there is a strong hierarchy amongst its sub-categories. With a deeper insight into two previously mentioned typologies, it is the purpose of the following section to show the kind of hierarchy that resides within and to reveal the character of the systems established.

3.2.1 Sting

The first housing typology we shall mention is *Grundriss Wohnungsbau* by Helmut Sting [1975]. It is an inclusive housing typology that claims to make a comprehensive classification based on *access systems*. In this book, Sting talks of access units of which the addition and combination results in a building complex. He examines access typology of housing in three main groups: vertical access, horizontal access, and dual-path systems; the last being the combination of the first and the second. Every group is neatly subdivided into more specified groups. The whole of the book is presented to be a pedigree-like typology in which every possible object can fit. The contents of the book are as follows [Sting 1975]:

I. Units with vertical access
1. Sections facing two directions, extensible along one axis
1.1 Internal staircase
1.1.1 Access by stair and lift
1.1.2 Access by stair and lift, in groups of two
1.1.3 Access by stair and lift, in groups of three
1.1.4 Access by stair and lift, in groups of four
1.2 External staircase
1.2.1 Access by stair and lift
1.2.2 Access by stair and lift, in groups of two
1.2.3 Access by stair and lift, in groups of three
1.2.4 Access by stair and lift, in groups of four
1.3 Staggered sections
2. Sections facing all directions, extensible along two or more axes
3. Detached units
3.1 Circular units and derivatives
3.2 Square and rectangular derivatives

3.3 Triangular derivatives

3.4 Y-shaped, T=shaped, cross-shaped and star-shaped units

3.5 Freely shaped units

II. Units with horizontal access

4. Single-storey sections

4.1 Buildings based on lateral corridor plan

4.2 Buildings based on central corridor plan

4.3 Buildings based on double corridor, central core plan

5. Units of two or more storeys (maisonette type)

5.1 Units with external corridor

5.1.1 Longitudinal stairs

5.1.2 Transversal stairs

5.1.3 Landing and spiral stairs

5.2 Units with internal corridor

6. Split level units

3.1 Units with external corridor

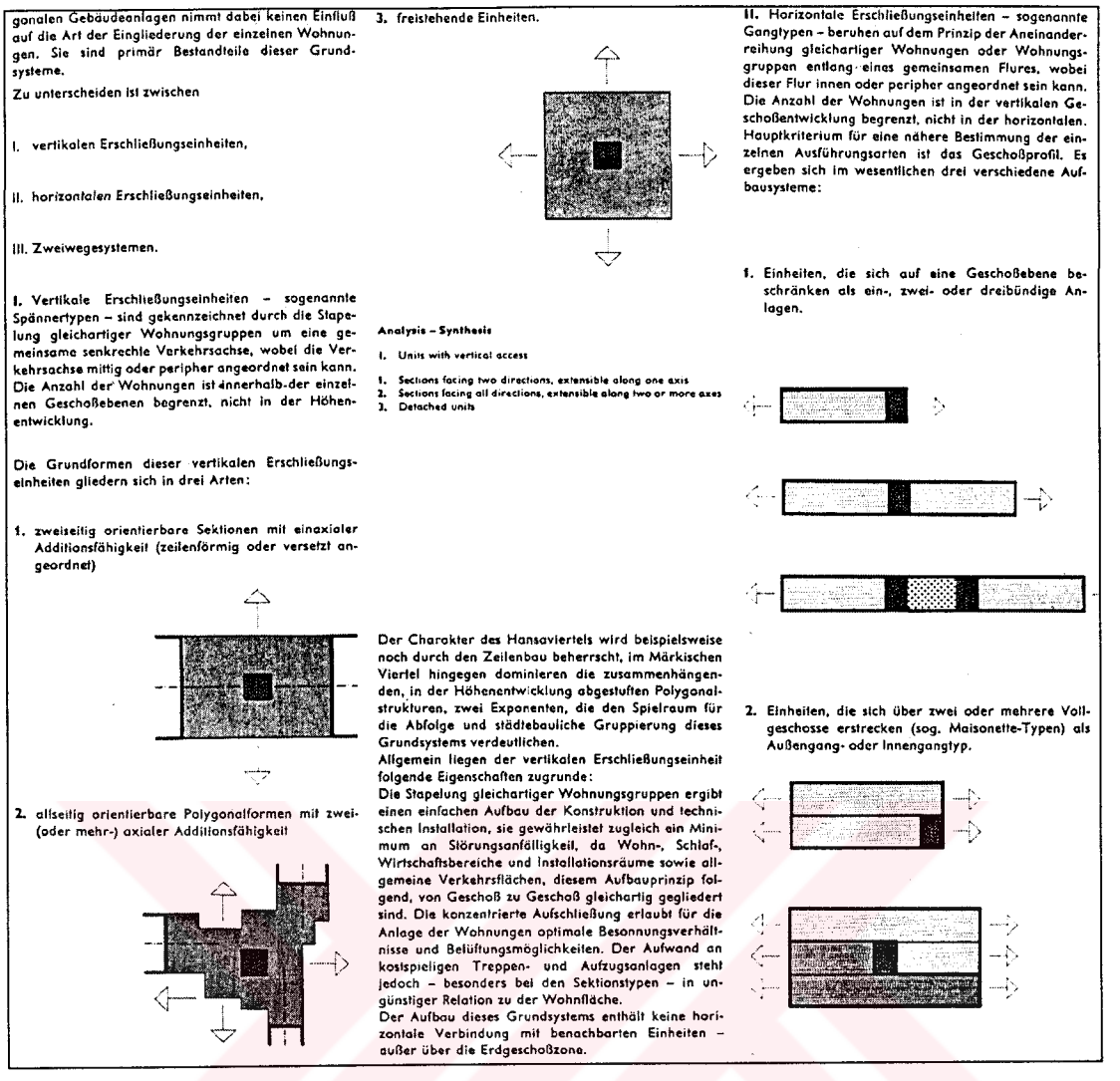
3.2 Units with internal corridor

III. Units with vertical and horizontal access

1. Units with external corridor

2. Units with internal corridor

Looking at the contents of the book, we can see that Sting tries to make an extensively comprehensive system, so as to include both the existing and the probable (still-to-be-found-out) types of housing. His obsessive will to include any possible object makes him go deep into a very, maybe too, hierarchical categorization. Although every element of this categorization is logical to some extent, the whole of the picture is rather unrealistic. That is because it lays down a claim that the above listed is what there is as housing. In these terms we could refer to it as a *closed system* of typology. The attitude against new ideas and topics is ignoring. However, when we look at housing design practice today, we see that architects have to and do strive for new solutions everyday more. Even for a seemingly well defined concept like access —as it is the case here— today's designers are remarkably inventive and able to come up with surprising, new approaches every time.



gonalen Gebäudeanlagen nimmt dabei keinen Einfluß auf die Art der Eingliederung der einzelnen Wohnungen. Sie sind primär Bestandteile dieser Grundsysteme.

Zu unterscheiden ist zwischen

I. vertikalen Erschließungseinheiten,

II. horizontalen Erschließungseinheiten,

III. Zweiwegesystemen.

I. Vertikale Erschließungseinheiten – sogenannte Spännertypen – sind gekennzeichnet durch die Stapelung gleichartiger Wohnungsgruppen um eine gemeinsame senkrechte Verkehrsachse, wobei die Verkehrsachse mittig oder peripher angeordnet sein kann. Die Anzahl der Wohnungen ist innerhalb der einzelnen Geschoßebenen begrenzt, nicht in der Höhenentwicklung.

Die Grundformen dieser vertikalen Erschließungseinheiten gliedern sich in drei Arten:

1. zweiseitig orientierbare Sektionen mit einaxialer Additionsfähigkeit (zeilenförmig oder versetzt angeordnet)

2. allseitig orientierbare Polygonalformen mit zwei- (oder mehr-) axialer Additionsfähigkeit

3. freistehende Einheiten.

Analysis – Synthesis

I. Units with vertical access

1. Sections facing two directions, extensible along one axis
2. Sections facing all directions, extensible along two or more axes
3. Detached units

Der Charakter des Hansaviertels wird beispielsweise noch durch den Zeilenbau beherrscht, im Märkischen Viertel hingegen dominieren die zusammenhängenden, in der Höhenentwicklung abgestuften Polygonalstrukturen, zwei Exponenten, die den Spielraum für die Abfolge und städtebauliche Gruppierung dieses Grundsystems verdeutlichen.

Allgemein liegen der vertikalen Erschließungseinheit folgende Eigenschaften zugrunde:

Die Stapelung gleichartiger Wohnungsgruppen ergibt einen einfachen Aufbau der Konstruktion und technischen Installation, sie gewährleistet zugleich ein Minimum an Störungsanfälligkeit, da Wohn-, Schlaf-, Wirtschaftsbereiche und Installationsräume sowie allgemeine Verkehrsflächen, diesem Aufbauprinzip folgend, von Geschoß zu Geschoß gleichartig gegliedert sind. Die konzentrierte Aufschließung erlaubt für die Anlage der Wohnungen optimale Besonnungsverhältnisse und Belüftungsmöglichkeiten. Der Aufwand an kostspieligen Treppen- und Aufzugsanlagen steht jedoch – besonders bei den Sektionstypen – in ungünstiger Relation zu der Wohnfläche.

Der Aufbau dieses Grundsystems enthält keine horizontale Verbindung mit benachbarten Einheiten – außer über die Erdgeschoßzone.

II. Horizontale Erschließungseinheiten – sogenannte Gangtypen – beruhen auf dem Prinzip der Aneinanderreihung gleichartiger Wohnungen oder Wohnungsgruppen entlang eines gemeinsamen Flures, wobei dieser Flur innen oder peripher angeordnet sein kann. Die Anzahl der Wohnungen ist in der vertikalen Geschoßentwicklung begrenzt, nicht in der horizontalen. Hauptkriterium für eine nähere Bestimmung der einzelnen Ausführungsarten ist das Geschoßprofil. Es ergeben sich im wesentlichen drei verschiedene Aufbausysteme:

1. Einheiten, die sich auf eine Geschoßebene beschränken als ein-, zwei- oder dreibündige Anlagen.

2. Einheiten, die sich über zwei oder mehrere Vollgeschosse erstrecken (sog. Maisonette-Typen) als Außengang- oder Innengangtyp.

Fig. 3.4 Page from Sting's book

3.2.2 Sherwood

Modern Housing Prototypes by Roger Sherwood [1978] is the second typological study worth mentioning in this context. The book comprises mainly of two parts. The first part presents two separate systems of classes similar to that of Sting in the way that all is neatly grouped and named. Within the first part, first system is concerned with the positioning of dwelling units in a block. According to this, there are three basic unit types: Single orientation unit, double orientation unit —90°, and double orientation unit —open ended. The second part is regarding access systems along which those dwelling units are aligned. Both of these aspects are separately examined and several sub-classes are presented at diverse levels. In order to explain what each class exactly refers to, Sherwood makes use of schematised drawings

together with some plan drawings of existing projects. The contents of this first part is as follows:

Unit types:

1. Single orientation unit
    - Single orientation unit; transverse core
    - Single orientation unit; interior core along the corridor
2. Double orientation unit, 90°
3. Double orientation unit, open ended
    - Double orientation unit, open ended; interior stair and core
    - Double orientation unit, open ended; exterior kitchen, longitudinal stair
    - Double orientation unit, open ended; exterior kitchen, transverse stair
    - Double orientation unit, open ended; interior kitchen, transverse stair

Building types:

1. Private access
2. Corridor buildings
3. Single-loaded corridor system
    - Single-loaded corridor system; corridor every floor
    - Single-loaded corridor system; corridor every second floor
    - Single-loaded corridor system; corridor every third floor
4. Double-loaded corridor system
    - Double-loaded corridor system; corridor every floor
    - Double-loaded corridor system; corridor every second floor
    - Double-loaded corridor system; corridor every third floor
5. Double-loaded split-level system
    - Double-loaded split-level system; corridor every second floor, alternating position
    - Double-loaded split-level system; corridor every third floor
    - Double-loaded split-level system; corridor every third floor, alternating position

The second part of the book is very different in character and method than the first. The approach is again categorical but is presented rather differently. This part consists of some several international prototypes that are presented with a short text along with some plan drawings, axonometries, and photos. The descriptions are rather plain and, surprisingly, they do not refer to or receive any reference from any of the concepts introduced in the previous part. For this reason, we could say, the book in total lacks integrity. This lack of integrity can be interpreted as an inclination towards establishing a less *closed system* of housing types. The contents of this second part is as follows:

1. Detached and semi-detached housing

2. Row housing
3. Party-wall housing
4. Slabs
5. Towers

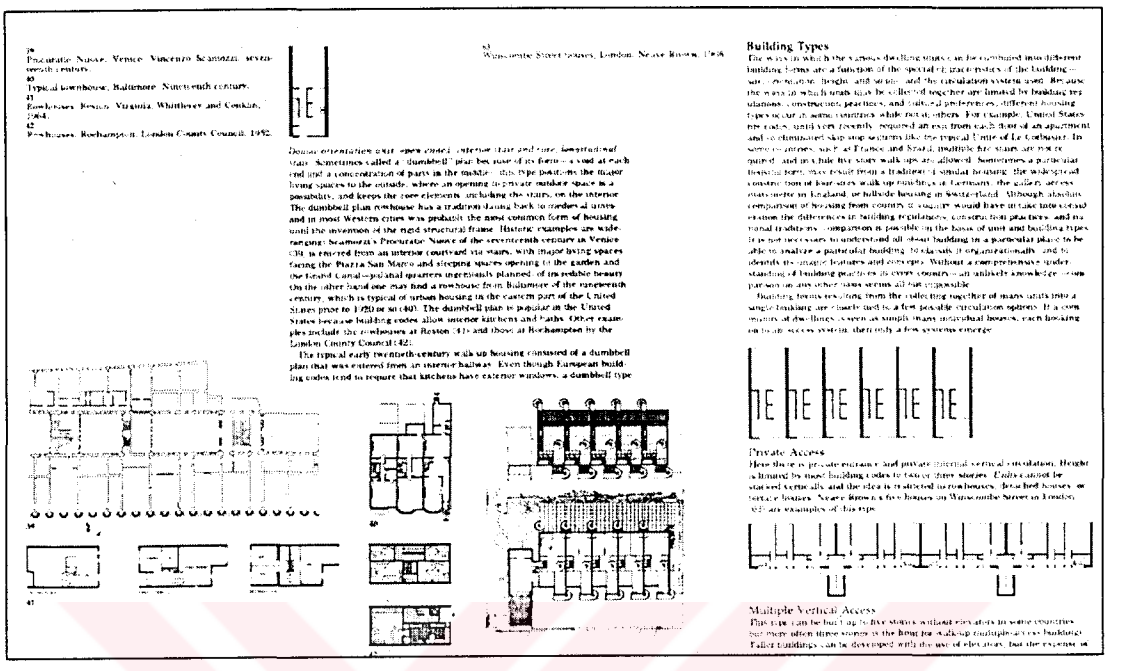


Fig. 3.5 Pages from Sherwood's book.

When we compare the contents of Sting's book with that of Sherwood's, we see similarities in approach. They both present a *closed system* of typology and are very keen on sorting existing and possible housing types taking one aspect at once and then comparing them. By doing so, they reach at a complex presentation of housing. This very approach has been largely valid and influential over a period of time. Designer did make big use of these and many other typologies while they designed. Today, designing activity has reached at such an advanced level that it becomes a little nonsense to talk about such fixed typologies; for architects have become surprisingly inventive in such regards. However, this does not necessarily mean that studies above and alike are totally useless; firstly because they provide us with the basics of housing typology and its principles that are further to be worked out within design activity; and secondly, they make a sort of a dictionary with which all parties can think and communicate over while dealing with every new housing situation. As to refer to the importance of types functioning in this way as definitive entities, Schneekloth and Franck [1994, p. 15] put it like this:

> "Types organise thinking, communicating, and acting in all domains of life. Types and acts of typing allow us to make distinctions between things and to divide them; they allow us to recognise similarities between things and to collect them."

So, even if above given like typologies are not acceptable as they are any more, their contribution to our vocabulary and thus, thinking is undeniable. Types help us understand the things that surround us because we can understand something in relation to other things around it. By creating types, categories, hierarchies and alike, we organise our thoughts, make them manageable. But more importantly, as we tend to do this collectively and share these, a certain selection process starts to take place for different notions of such descriptions. As far as types are concerned, some of them are used and fashionable for a period of time and later they disappear; some of them are more accepted then others so, they prevail in time to become better defined and; some others gain a certain meaning and even become fixed. Such perception of typology as an evolutionary entity is the reason that typology as understood in this study is and should be an *open system.*

3.3 Examples

Unlike the celebrated typological studies of Sting and Sherwood, present study does not aim at creating a similar, consequential system with which every project can be studied. Therefore the examples given do not claim to give an overall picture of what there can be talked about when our subject is the typology of housing. Rather, it is an attempt to investigate a kind of transformation, namely *hybridisation*, that occurs amongst some types that are suggested to have gained the characteristics of a sign in the direction of making new types. For this purpose, some hybrid types shall be studied thoroughly in the following chapter. But before that, we shall now take a look at some housing typologies that could be referred to as 'pure types' and have the characteristics of a sign like mentioned above. Once again, they are not put together so as to make up a typology in the notion of a 'system of types'. However, the choice is not made randomly. The logic that applies in making the choice which types to mention here has to do with their level of recognition in the general context of housing design. Like argued previously in this chapter, architectural types can be seen as signs. So, rules of evolution for signs do apply for types as well. Over a course of time like a sign acquires gradually a more definite meaning, what a type

refers to becomes clearer. The more both are used within a specific context, by a specific group of people, they get closer to having a well attached meaning. However, they cannot preserve the same meaning in the longer run because both the context and the users keep changing. During the process, in proportion to their level of recognition some persist, some change, some disappear. The following examples are chosen with respect to these concepts. Though different from each other, they all acquire a certain level of recognition. Some are older than the others so they possess a changed and stabilised meaning through the course of time. Others are more contemporary and the concepts they refer to are relatively vague in comparison to older ones. Then there is one example, parasite, which is supposedly at the outset of its journey as a sign-type. It owns certain properties which refers to the formation of a type, however, it is still very young. Whether or not it is going to make it as a type which can be used as a sign so as to bring communication about, stays uncertain for the time being.

The following typology is based on recent architectural media in the Netherlands. The given typologies are chosen amongst a large number and variety of typologies mentioned in many architectural publications over the country. They have various different backgrounds and development processes. Some are internationally accepted, while the others are specific to the Netherlands. The important common point is that they are all discussed and written about collectively and intensively so that they fire the creation of new ideas and concepts.

3.3.1 Bungalow

As stated in the *Merriam-Webster Dictionary* 'bungalow' is "a one-storied house with a low-pitched roof." Etymologically speaking, the word comes from 'bangla' [Betting & Vriend, 1958] —abbreviation of the peasants' house of rural Bengal, India. During the colonial period, it came to mean a house for Europeans in India, which usually is one storey high, has a pitched roof and verandas. Its special adaptation to warm weather with large openings towards nature and hanging roofs over its verandas led to its import to Europe as a summer house in the post colonial period [Comstock and Schermerhorn 1990, p. 11]. From that time up until today, the term and its typology has spread around the world each time with a different criteria to the fore: according to its function (as a leisure, holiday house), location (at the sea

or riverside, in the country), construction (simply built, prefabricated) or design (one storey) [King 1984, p. 2]. According to King, the bungalow is possibly the only dwelling type which, both in form and name, can almost certainly be found in every continent of the world.

Fig. 3.6 Sketch of the indigenous 'bangla' by G. Chimnery.

It goes without saying that every country has its own characteristics, rules and traditions in building. However, during the modern period, architects from all over the world agreed to common principles around the idea of the modern bungalow which were first investigated and elaborated by the American architect Neutra. Most significant of Neutra-bungalows is that it elaborates the original features of the bungalows (open, airy, natural, simple but elegant) and develops them into standards of the desired modern living. Margins set by then still determine the basic features of today's bungalows [Betting & Vriend, 1958].

In the Netherlands today a bungalow is a compact, single-storied suburban house not necessarily with a pitched roof. Bungalows are integrated in newly planned neighbourhoods so as to decrease density. Bungalows are most found in the outskirts of cities within newly planned neighbourhoods rather than individually in remote nature. This is because private commissioning of houses is the Netherlands is still scarce. Nevertheless, a close visual and functional contact with the outside space is preserved by means of zero ground level difference and large glass surfaces on the

facades. Natural materials are best preferred with great attention to coherence and elegance in the final image.

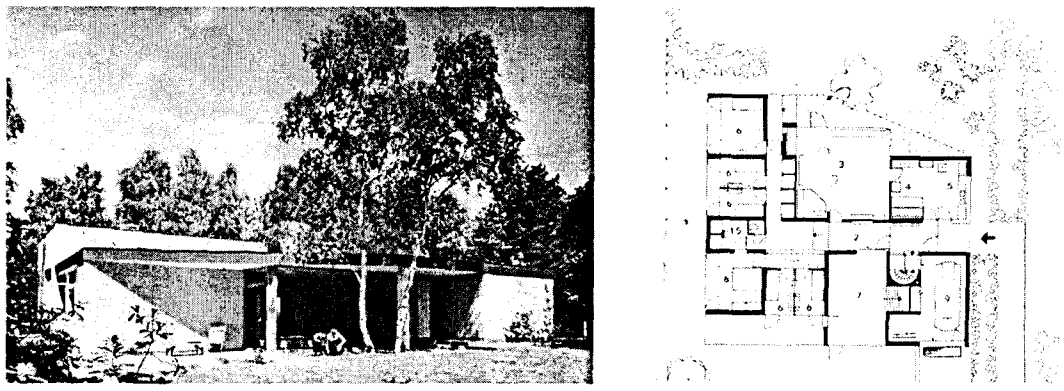


Fig. 3.7 Bungalow J. Rietveld in Huizen.

3.3.2 Sun-through Dwellings

Starting from 50's and becoming extremely widespread during 70's, the 'sun-through dwelling' (doorzonwoning) type comprises still a large proportion of the Dutch housing stock. The reason for it to become so widespread lies in the fact that it offers both practical and economical advantages at once. The neutrality and compactness of one dwelling unit makes it possible to adjoin these units with great ease to form rows. Besides, other attributes such as flexible orientation and simple construction make it possible to guarantee an optimal single row solution for almost every new suburban settlement. In principle, the floor plan of the sun-through dwelling is longitudinally divided into two, generally with a wall that is load bearing, to create one narrow, and one wider bay. While, the narrow bay houses services such as the entrance hall, kitchen, toilet, staircase, bathroom etc.; the wider bay stretches from back to the front undistorted as the living-dining room on the ground floor; and on the first floor it contains the bedrooms. Apart from being functionally clear and efficient, this system of building in two bays was once very advantageous for, then, the load bearing structure was of masonry and the span of every dwelling unit, being divided into two, could be wider as desired.

Disadvantages of the sun-through dwelling are generally regards its boringness. Rows of houses of same height and façade repeating endlessly, create a disorienting and tedious neighbourhood. Looking from today's point of view, one other aspect of undesirability about the sun through dwelling is concerning privacy. The living room

being situated on the ground floor, stretching as deep as the dwelling and having large glazing on both facades against each other, becomes too much integrated with the street. Neighbours or other strangers passing by almost cannot avoid seeing the inside of the dwelling and this does not fit with the high privacy demands of the contemporary Dutch society. The intention to let maximum sunlight in —as evident in the name of the type—thus results in lack of privacy [Priemus 1970a, p. 20]. In order to overcome this problem another variant was developed: the 'meander dwelling'. By shifting the interior walls in one big span, the kitchen could be placed on the exact opposite of the hall. This configuration made it possible for the daylight to shine from front to the back (thus still a sun through dwelling), *but* avoided curious glimpses of the passers-by. More over, the living room got a more articulated shape, more or less a Z shape, where usage layouts could be notably more diverse. [Priemus 1970b, p. 37].

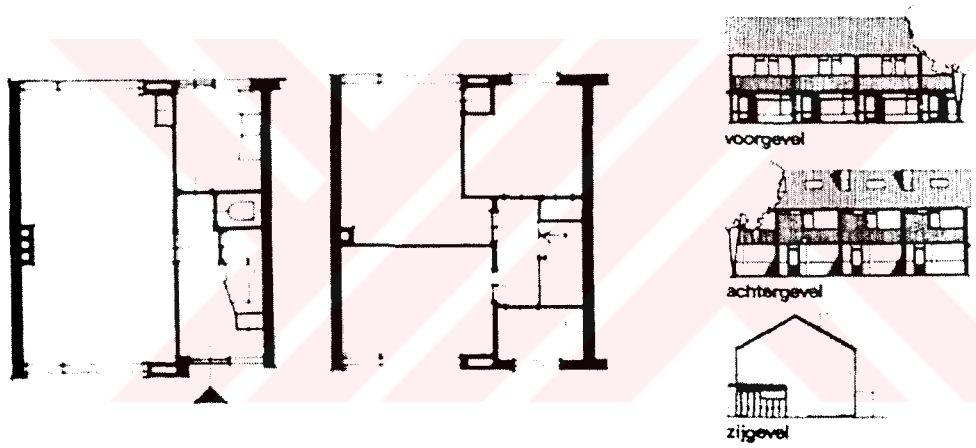


Fig. 3.8 Classical sun-through dwelling.

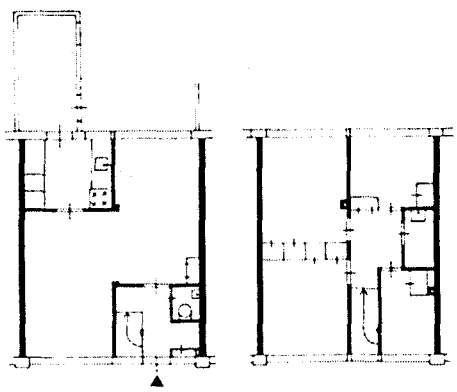


Fig. 3.9 'Meander' variant of the sun-through dwelling.

> "The pavement in front of the house of concrete tiles, square 30x30. The pathway towards the front door has tiles with double size: 60x60. Good neighbours, low hedges; bad neighbours, high hedges. Row of houses are laid brick, they are built by a local contractor and drawn by a local architect, they have fresh white window frames. The row house has two storeys and a roof with a ridge. The pointed roof is the best solution for the water drainage, it creates a storage attic and guarantees light in the back garden" [Geuze 1995, p.5].

The above given text is quoted from Adriaan Geuze's book called *In Holland Staat een Huis (There is One House in Holland)* which manifests a critical approach towards the uniformity and boringness of the suburban Dutch housing. Like the quoted piece above, the rest of his text describes several different aspects of the row housing in the Netherlands in a childish and funny way. His ironic way of describing points to the obviousness and cliché-like attributes of the row house. For example, the cars in a row house street are parked by two wheels against the pavement, or there are always bicycles and grass-cutters in the sheds, or the townsman puts his clogs on to get to the shed etc.

3.3.3 Patio dwelling

A 'patio' literally means an open terrace, an inner square in a house. Today's patio dwelling possibly has its roots in the Roman atrium house, the North African kashba house and the Spanish patio dwelling [Melis and Roodbol 1993]. In these cases, the necessity to build a patio basically has its reasons in some social aspects (high level of social isolation) or in climate conditions (need for protection from direct sun light). Since the contents of these aspects in the Dutch context are radically on the opposite of its original context, the patio dwelling as applied in the Netherlands is rather different than its ancestors in configuration and expression. Patio dwellings built in the Netherlands between the 60's and the 70's are often characterized by an open relation with the street; large glazed fronts unlike the original type with the closed street frontage. This is because "home life in the Netherlands is traditionally focused on the street and the dwelling maintains a transparent relationship with the outside world" [Oosterman 1996, p. 34]. This attribute is probably a result of a more concrete parameter: the dark northern climate where maximum amount of sunlight is mainly desirable.

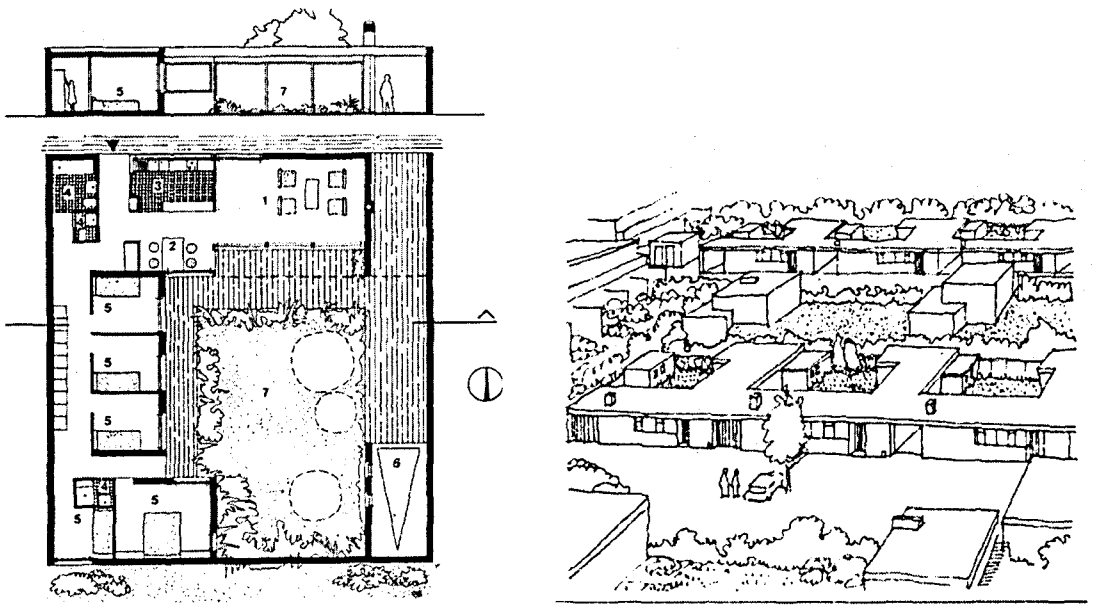


Fig. 3.10 'Het Hool' patio dwellings by Van den Broek and Bakema Architects, 1973, Eindhoven.

The patio dwelling refers to a dwelling with an open space though the configuration within or the relationship with the neighbouring dwellings etc. is not clearly defined. It might be referring to a three storey house in a row or a one storey house in a carpet layout. The only fixed aspect of the patio dwelling is the existence of an open space which is only accessible from one dwelling unit and is well protected from the outside world. Therefore, even if the physical conditions do not match that of the original type, patio houses have recently become a favourable type in the Netherlands for it offers a good solution to building open spaces with a high level of privacy in the high density urban contexts.

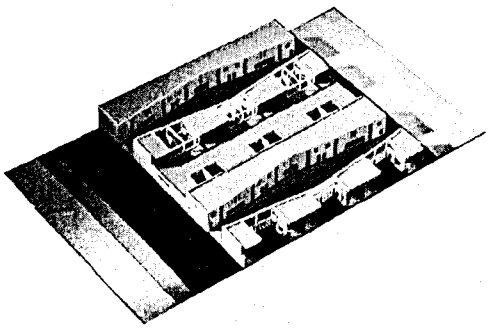


Fig. 3.11 Patio dwellings in Osdorp, Amsterdam by Van Sambeek & Van Veen, 1995.

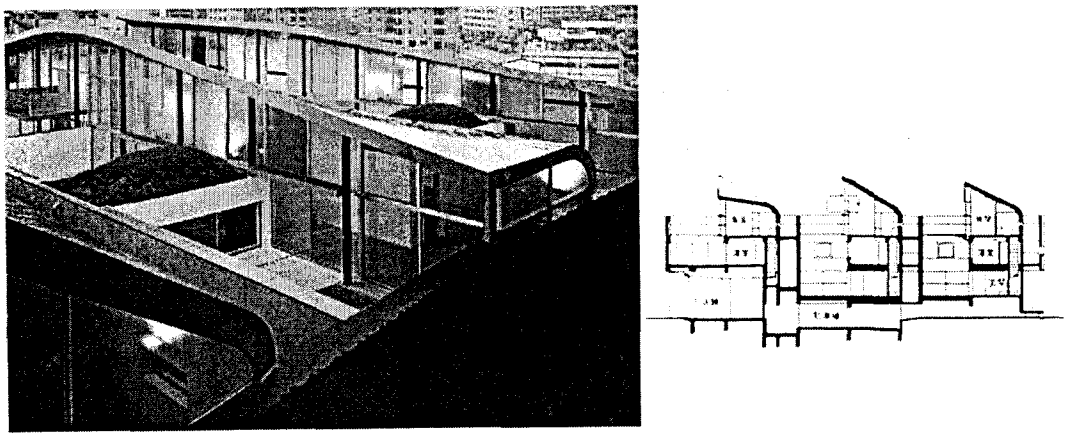


Fig. 3.12 Patio dwellings in Fukuoka, Japan by R. Koolhaas, 1989-1991.

3.3.4 Drive-in house

The relationship the modern architect had with the automobile was very intensive. For him the car stood as a model for the perfect production technique which the building industry can or should emulate. Le Corbusier established his machine analogy for the house to manifest this relationship and designed houses with built-in garages as modern coach houses. Creating such an intense relationship between the car and the house, made the longing all very clear. Another important point of discussion about the drive-in house was regarding the new set of relations between the occupant and the outside space. The delivery of goods and people in front of the house, on the pavement was a thing of the past. Now, the car could go into the house, letting all delivery matter become utterly internal.

The first 'drive-in house' in the Netherlands was brought up by Van Tijen, Stam and Beese around the year 1936 [Idsinga and Schilt 1987, p. 247-248]. As evident in the name a drive-in house basically refers to a type where there is indoor space allocated in the house for a car. The most regular of the type offers space for the car on the ground floor, underneath the living spaces. Half sunken carports are also pretty common, where the living spaces are half way tilted up offering the opportunity to regulate the relationship with the ground level at the rear of the house.

After the first introduction of the drive-in house in the modern period, some examples were built during late 1960's. Somehow, it did not become very widespread in the Netherlands until recently [Oosterman 1996]. The ideas about the

undesirability of a garage door as front door without any front garden has recently been replaced by the pressures of rising land prices in urbanised areas and increasing car ownership. In a prosperous and so densely populated land like the Netherlands, allocation of large pieces of land for public parking in new low-rise neighbourhoods became terribly unaffordable *and* undesirable. The solution was the annexation of the front garden for a private parking space in cheaper sectors, and a drive-in carport in the more up-market dwellings.

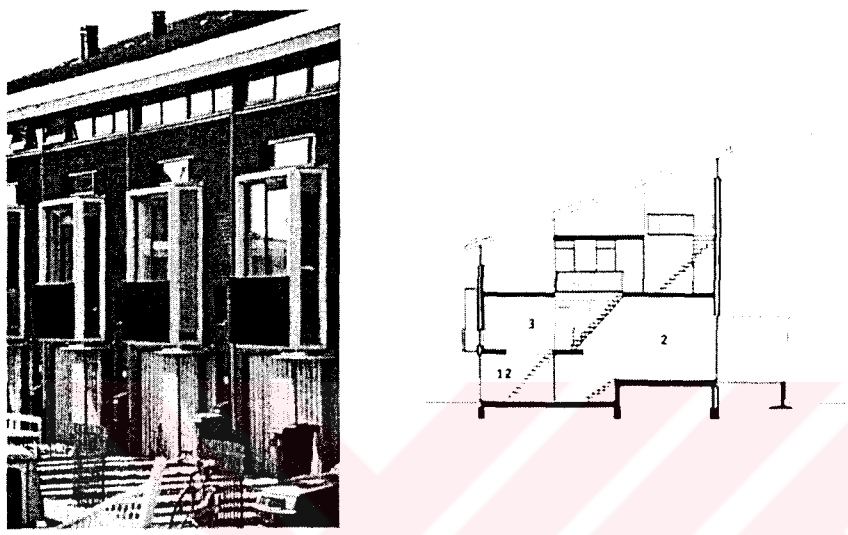


Fig. 3.13 Drive-in huse in Zaanstad, The Netherlands by Rudy Uytenhaak, 1996.

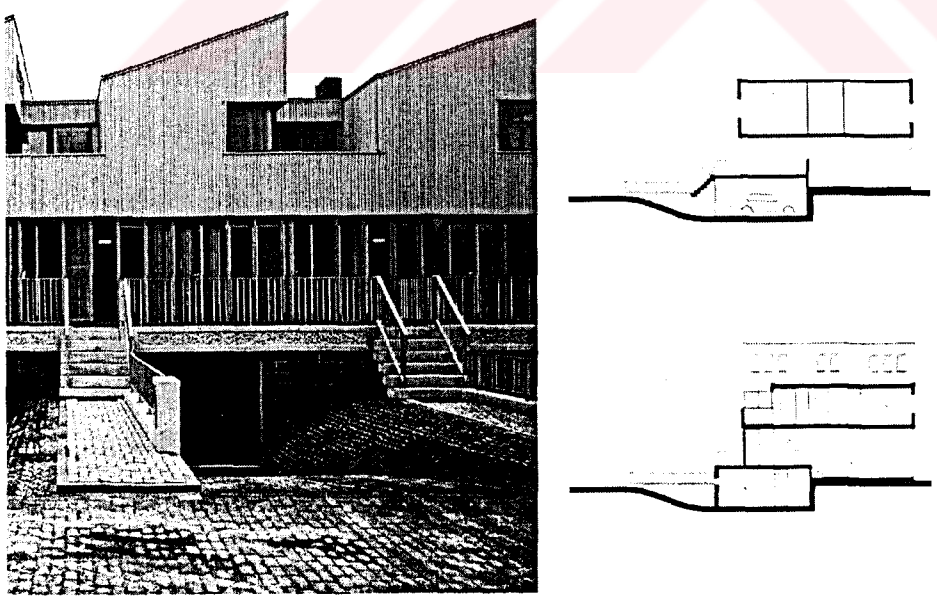


Fig. 3.14 Drive-in huse in Tilburg, The Netherlands by Neutelings and Riedijk Architects, 1996

3.3.5 Urban Villa

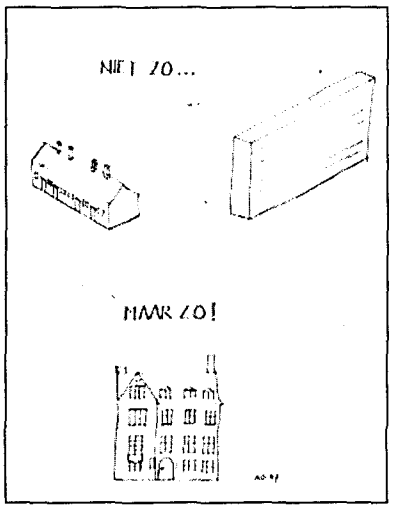


Fig. 3.15 Sketch by Arjan Oosterman "Not so, but so!"

The 'urban villa' in its contemporary meaning is a three to five storeys high block with ten to twenty dwelling units organised around one central staircase. Typologically seen, an urban villa is said to be a hybrid of a villa, a closed block and a tower[2]. Some say that the urban villa is nothing other than a northern interpretation of the famous Italian *palazzina.* The palazzina is a well-known type in Southern Europe, as well as in East Mediterranean countries like Turkey, Lebanon and Israel. To give a brief description, the palazzina is a small *palazzo* of which the inner courtyard is shrunk down to a light hole. It is four to five storeys high and has four to twenty dwellings inside [Oosterman 1988]. Since 16th century, the palazzina has been popular in speculative housing. It has been a favourable type for small investors who wanted and achieved to reach high density in urban as well as suburban neighbourhoods —even sometimes against the will of their governments. Many critics and designers today think that the urban villa shows great similarities with the palazzina qua form, program and even this last speculative aspect.

[2] A reasearch commissioned by the Dienst Stadsonwikkeling en Volkhuisvesting, Rotterdam to De Nijl -architects combination, questions the historical-typological parallels of the urban villa. *Villa varia,* Rotterdam 1987.

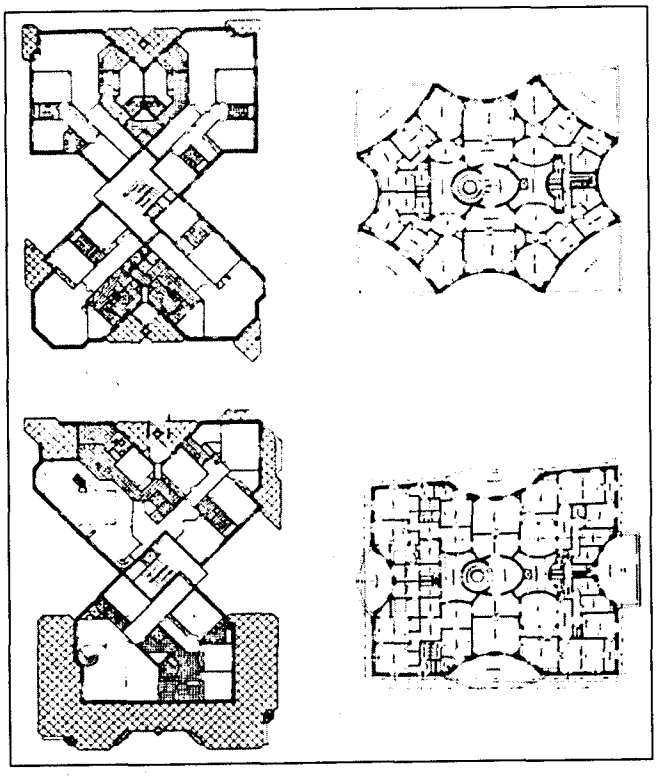


Fig. 3.16 Palazzinas by Zevi (1952) and Caponi (1929), Italy.

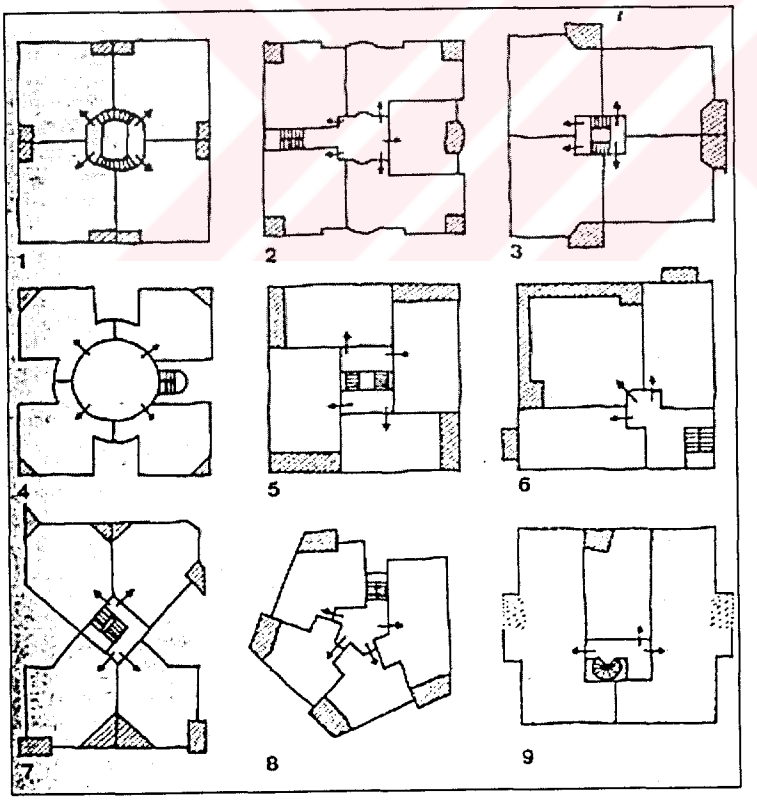


Fig. 3.17 Floor plan variations for the urban villa.

While the discussion around the typological aspects stay somehow still vague, many theorists choose to scrutinise the term itself. The term 'villa' on its own referring to a free standing large residence situated in nature, its combination with the word 'urban' is rather paradoxical. Up until now villas that are built in the city have a rather introvert character, turning itself away from the rest of the city. It has never been really urban. The reason why the term 'urban villa' attracts so much attention is that it directly points to the very nature of its typology itself having this paradox of being urban and rural at the same time. In cases where architects and planners strive to enrich their designs by creating some tension between the village-like and urban, urban villa has been the ultimate answer.

The urban villa in the Netherlands is a rather new phenomena. Because of the fact that housing in the Netherlands has had a very strong social orientation, the urban villa recalling something luxurious at first instance, has been avoided for quite a period of time. The Netherlands began using this southern typology long after other northern countries —Germany in the first place[3]— have adopted it. The title 'luxurious' associated with the word 'villa' first had to be eliminated by the help of a series of cost-efficiency studies [Leupen 1989, p. 53]. The first conscious introduction of this type was made by the famous IJ-Plein project by OMA (Office for Metropolitan Architecture). Founder of the office, Rem Koolhaas, having been to workshops and seminars around this new theme for the first time in Berlin Summer Academy in 1977, brought the urban villa in existence in the western section of the celebrated IJ-Plein project, to inspire many others to come.

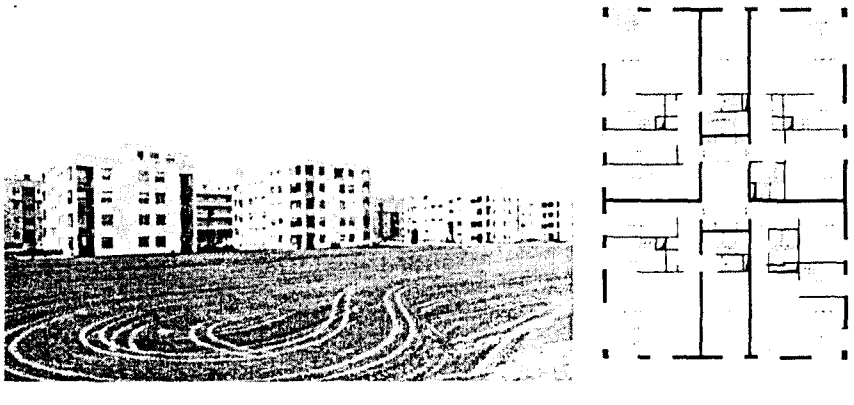


Fig. 3.18 Urban villas on IJ-Plein by Hein van Meer, 1985.

3.3.6 Flat

'Flat' in Britain, 'apartment' in United States, and 'etagewoning' in the Netherlands is "a room or set of rooms fitted especially with housekeeping facilities and usually leased as a dwelling" according to the *Merriam-Webster Dictionary*. Other definitions given in any other architectural source is no better than this simple dictionary definition because it is not an architectural term but an everyday word for everybody. It is a rather vague designation and that is just why it became so wide-spread. As also evident in the chosen name, the clearest feature is that, all spaces of each dwelling unit is on one floor, and a multiple of these units are stacked and linked to constitute a bigger whole —a block, a slab, or a tower. The internal subdivision possibilities of each dwelling unit is immense. *The Floor Plan Atlas* by F. Schneider [1997] is one good example of such studies investigating the different possibilities of a flat dwelling as one whole on its own *and* as a part of its complex. He distinguishes 8 pure floor plan types according to the connection and isolation of spaces, paths and views. In his words, "The idea behind a floor plan represents the interpretation of a certain notion of living." So, analysing a number of apartment complexes from all over the world, and presenting them categorically, he aims at giving an overall view of the possibilities of internal organisation of flats. However, the configuration of the floor plan is not the only criteria while talking about different types of flats. Some flats are not just called flats but a 'penthouse' or a 'loft' and these refer to a certain total image.

Around the beginning of the 20th century Dutch housing market became acquainted with flats. The main reason to begin with thinking of building higher was firstly, the rising ground costs. Under the circumstances where ground was becoming scarce and therefore more expensive, speculators, who were the only housing producers of those days, had to think of other ways to offer relatively quality housing with low rent. They came up with the idea to simply stack up separate dwelling units. Because of technical deficiencies, first it was not so efficient to build higher than three or four storeys high. Later as technology improved they would go higher over to 20 storeys [Priemus 1970a].

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[3] The Internationale Bauausstellung (IBA) organisation paid a good deal of attention on the urban villa by means of seminars and competitions under the theme: 'Die villa als urbane Wohnform'.

3.3.6.1. Porch Flat

The 'porch flat' is the earlier, low-rise variant of apartment buildings. They were allowed to be build at a maximum of four storeys high because the dwellings were accessed by a staircase only. Before the introduction of the lift to the social housing in the Netherlands towards the 1930s, this was the most efficient and reasonable way to build "high-rise". In such a setting, two to four flats are accessed from the landing of a staircase that is situated on the façade and so the entrances to each dwelling are somewhat sheltered. This is why this type is called the porch flat. Later as lifts became cheaper and therefore more wide-spread, some porch flats were built with a lift next to the staircase. Looking at larger scale, the porch flat arrangement is suitable for the following lotting forms: conventionally a closed block, an open block or free-standing small slabs —*strokenbouw* as referred to in Dutch. The advantage of the porch flat is the relatively good relation of each dwelling unit with the ground floor [Priemus 1970a] .

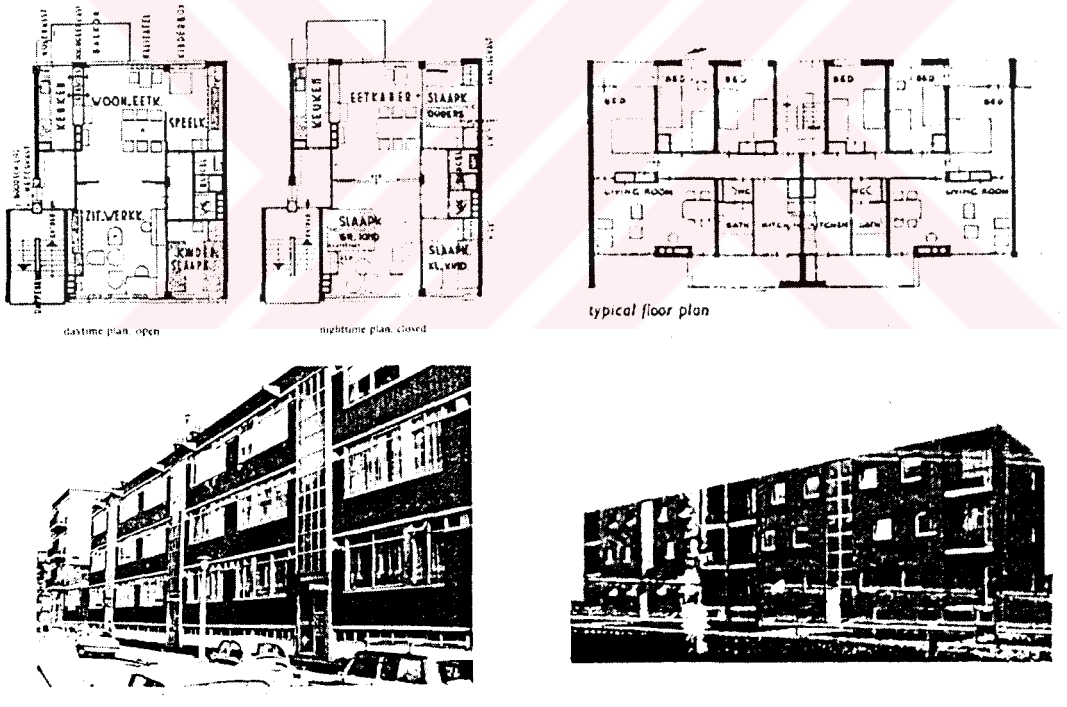

Fig. 3.19 Porch flats by Van den Broek & Bakema, 1934 and 1957.

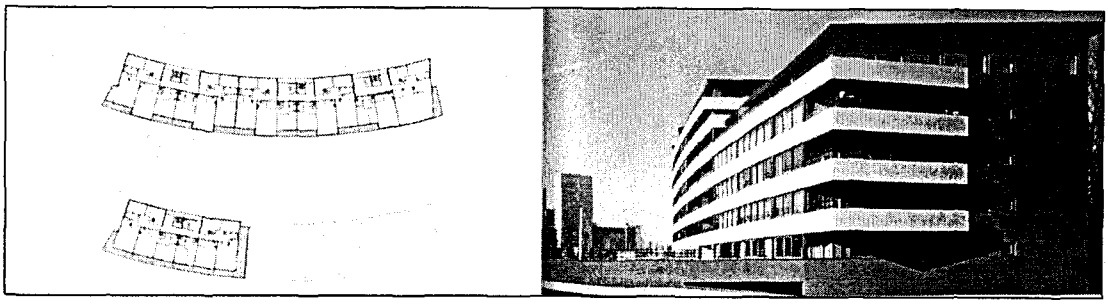

Fig. 3.20 Contemporary porch flat in Rotterdam by Kees Christiaanse, 1992- 1995.

3.3.6.2. Gallery Flat

In the after-war period, building higher was accepted to be the way to overcome the housing shortage. Together with the development of the lift and that of new building techniques, a new vision about high-rise developed itself. Many considered high-rise to be an indication, even a symbol of their optimism about the future in this period. Living high was the future; it was modern. Beginning from the first after-war years until the end of 1060's, the percentage of high-rise, especially gallery flats, increased. In 1962 the percentage of gallery flats in total multi-family housing realised was only 39, in 1964 it was 50%, and in 1967 it went up to 80%. and by the end of 60's around 70% of the new housing complexes were higher than six storeys and the 80% of that was of gallery flats [Priemus 1970a].

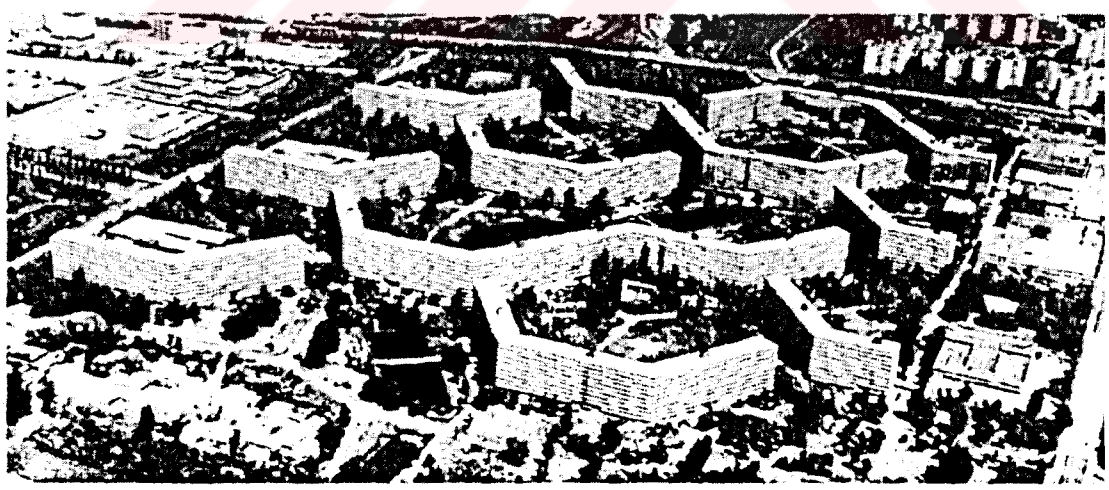

Fig. 3.21 Gallery flats in Bijlmermeer, Amsterdam 1962-1973.

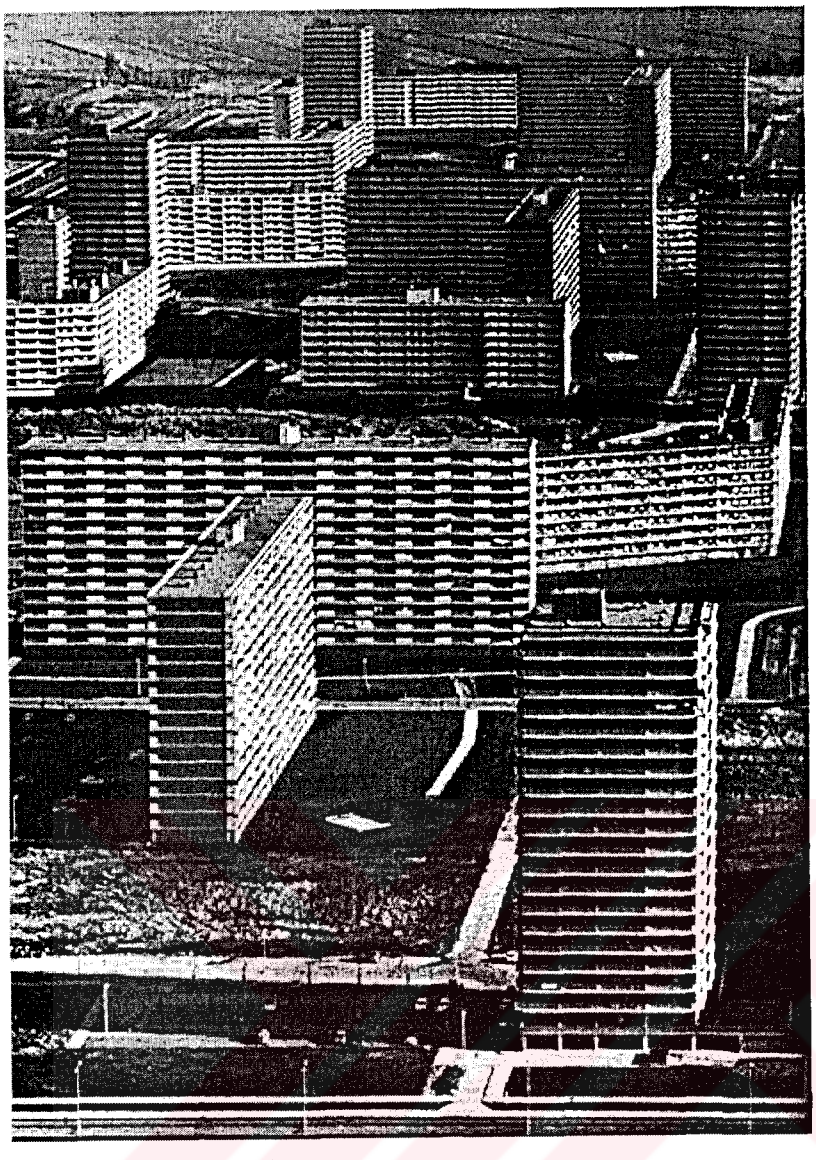

Fig. 3.22 Gallery flats in Ommoord, Rotterdam 1953-1956.

The 'gallery flat' basically refers to an access system in which a large number of flats are aligned along a passageway above the ground level that resembles a corridor with an open outer edge, i.e. a 'gallery'. This setting makes it possible to access many dwellings by one lift and a staircase, therefore it is considered to be one of the most efficient access systems for social housing projects. In comparison to the corridor variant where the passageway gives access to dwelling on its both sides instead of one, gallery is still considered to be more desirable because it is open to day light and thus, it minimises energy costs.

Fig. 3.23 A gallery.

The very first gallery flat of the world, Bergpolderflat, was built in Rotterdam between 1930-1934 by Van Tijen in collaboration with Brinkman and Van der Vlugt [De Baan 1999, p. 61]. It is the prototype for the post-war gallery flats. The idea behind the Bergpolderflat was to produce cheap but decent housing for the working – class. Standardisation and prefabrication were the key issues in realising this. The nine storeys high block was remarkable not only because of its height but also for its construction technique —on site assembling of prefabricated parts. With respect to urban planning, a high-rise housing block equals dwellings with sun and fresh-air and, less built area so that there is more space for greenery around the building. Also on the scale of the dwelling unit, the built area is optimised. By means of flexible subdivisions, sliding doors, folding beds and, collective service spaces, a small family could comfortably live on a surface of $50m^2$ [Groenendijk 2001, p. 25-29].

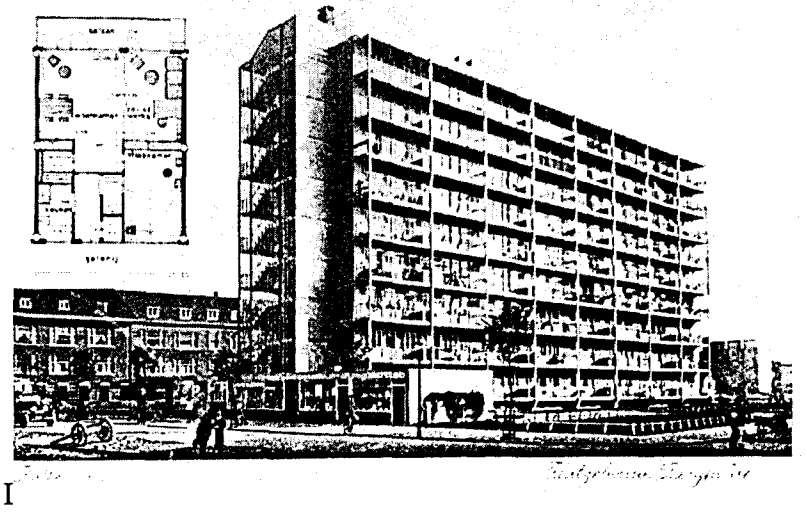

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Fig. 3.24 Bergpolderflat, Rotterdam, 1935.

In the period after the war, prefabrication companies favoured the high cost-efficiency of the gallery flat and carried out many research and experiments in order to perfect it. Their effort was more in the direction of lowering the buildings costs and they paid too little attention for the space and living quality. Many of the new neighbourhoods realised with these industrial building techniques were actually not considered well enough in terms of urban planning and social housing. So they lost popularity quite quickly. As a result of some quickly made political decisions, huge slabs blocked the horizon which are referred to as the 'Chinese Wall' scornfully. "The unprecedented scale regarding the landscape and the interchangeability of these buildings contaminated the word high-rise [De Baan 1999, p. 87]".

Today those gallery flats are being replaced with its smaller scale examples. It is considered merely as an access system which is to be used in combination with other access systems. In fact large gallery flats neighbourhoods are being gradually demolished and replaced with smaller scale buildings.

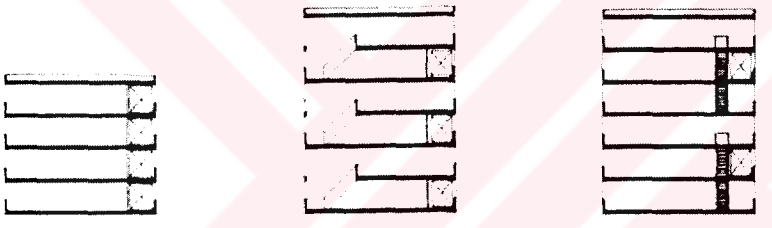

Fig. 3.25 Variations on the gallery flat.

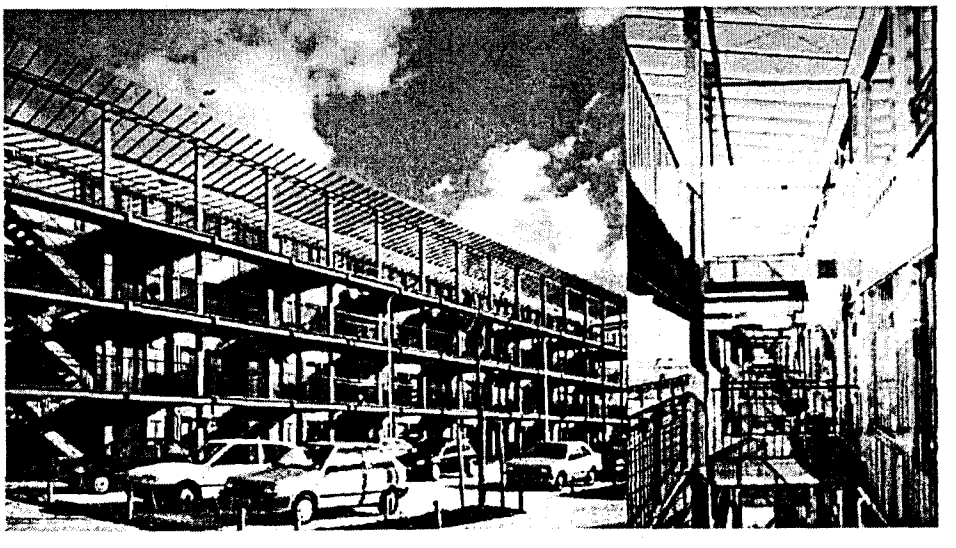

Fig. 3.26 Contemporary gallery flat in The Hague by Kees Christiaanse, 1994-1998.

3.3.7 ParaSITE

The word *parasite* literally refers to an organism living in, with, or on another organism without making a useful or adequate return [Merriam-Webster dictionary]. Depending on another for life functions provides the parasite with a much simpler constitution. This is the condition and principle they live on. Originally, *parasite* is a biological concept and refers to animals and plants that carry the above stated properties. However, it is such a strong concept that it inspires many other fields of research including architecture.

Parasite as a phenomenon has become frequently heard in recent architectural debate. It is one of the key concepts while issues like prefabrication, standardisation and technological innovation are being talked about, parallel to discussions of newly fashionable temporary and mobile architecture [Stuhlmacher 2000, p. 5]. The need to think of such ways to lighten architecture for the most part arises from observations on contemporary (sub)urban housing production. Building more and more houses in the outskirts of cities, thus creating endless suburbia, threatens the life of both rural and urban areas. As the country side gradually gets more congested by urban elements, existing city centres become emptier and abandoned.

In this context, architecture starts to dwell with great interest on the idea of building *light*, *temporary* or *mobile* with the hope to save both areas their characteristics. A sustainable urbanism and architecture that pay attention to issues of time, ageing, adaptability and consumption in an explicit way might be an answer to the question of urbanising nature. MVRDV's proposal 'Light Urbanism' is one very recent and striking example of such approach to the problem.[4] On the other hand, using of leftover sites within the existing urban fabric constitutes a rather opposing but probable solution to the same problem. Leftover sites like flat rooftops, vertical blank facades, water surfaces, infill plots, small parks, unused infrastructure are here regarded as high potential sites that could serve to the purpose of building in the city again. This idea is of course not suggested as an alternative to replace suburban development because of the smallness of its scale [Stuhlmacher 2001], however is still interesting because it attracts attention towards the significance of temporariness

and the advantages of city life. Leftover sites are sites that are temporarily not available for permanent development because of an (slow) ongoing process of planning or simply of neglect. The combination of this hitch with the need for mobility as a rising value of the contemporary nomadic working city dweller, results in proposing the so-called *parasites*.

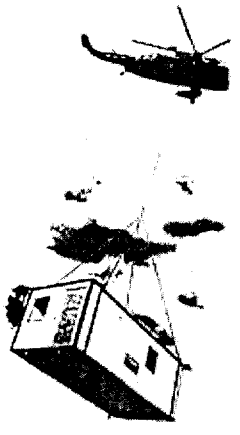

Fig. 3.27 Mobile architecture

Architect Kas Oosterhuis and visual artist Ilona Lénárd's proposal of paraSITEs dates back to 1994 [Oosterhuis, Lénárd and Novak 1998]:

> (... ParaSITEs) are loosely distributed over the centre of Rotterdam. Sometimes they land right on top of existing buildings, sometimes on the water sometimes they attach to vertical facades. These paraSITEs do not add new infrastructure to the city, they are feeding upon existing structures and are taking maximum advantage of existing environments. They are real parasites. The city of Rotterdam could host thousands of such paraSITEs. It would be much enriched by them, would co-evolve with its paraSITEs as a receptive host. These paraSITEs represent the ideal free-sanding villa in the city centre. The autonomous paraSITEs spread like a beneficial plague throughout the city, where they are set in place by helicopter. Their curved volumes are prefabricated in the factory, cut into transportable pieces and welded together on site.

This concept was included in the book called *Onwerpend aan Holland* [STAWON 1994, pp. 52-53] in which several inspiring urban planning sketches and projects are introduced and discussed.

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[4] Light Urbanism is "urbanisation with grass roads instead of asphalt, no sewage pipes, no heating cables, no telecomlines, but portable phones, no metrolines but minibuses on demand". See also; [Scalbert 1997].

Fig. 3.28 Parasites by Oosteruis and Lénárd, 1994.

The first built parasite, however, is designed by architects Stuhlmacher & Korteknie in Rotterdam. It is the first full-scale version of its kind. It is a product of an international research and exhibition project which was initially to take place in Malmö, Sweden but was finally realised in Rotterdam as a part of the programme of Rotterdam 2001, Cultural Capital of Europe. Other parasites designed for this experimental exhibition by young architectural practices and students' teams from all over Europe were displayed as models only. The theme of the exhibition was expressed with one word only: PARASITES, though, it meant more than one thing. Firstly, it is the acronym for "**p**rototypes for **a**dvanced **r**eadymade **a**mphibious **s**mall-scale **i**ndividual **t**emporary **e**cological houses" and hereby, stands for a combination of three fashionable concepts: sustainability, prefabrication and individuality. Secondly, para-SITES describe all kinds of locations that are usually regarded as unsuitable for permanent inhabitation And lastly, it stands for buildings that make parasitic use of the existing (infra)structure. All thirty parasite designs make use of all these notions in different and exciting ways. The built parasite somehow is a good translation of all three meanings into architectural form. It is a tailor-made design for on top of the roof of a former workshop-building, Las Palmas, on the side of the

Maas river. The location is a perfect example of leftover/ para- sites. The parasite rests on top of the main circulation shaft of the building which contains two lifts, a staircase and some sanitary units. In that sense, it demonstrates the ideal parasitic behaviour by making use of all services available. Finally, the chosen laminated timber building system offers ground for prefabrication, sustainability and, individuality.

Because of this series of strong ideas behind it, the built parasite is a prototype, thus a candidate to maybe become a type in the future.

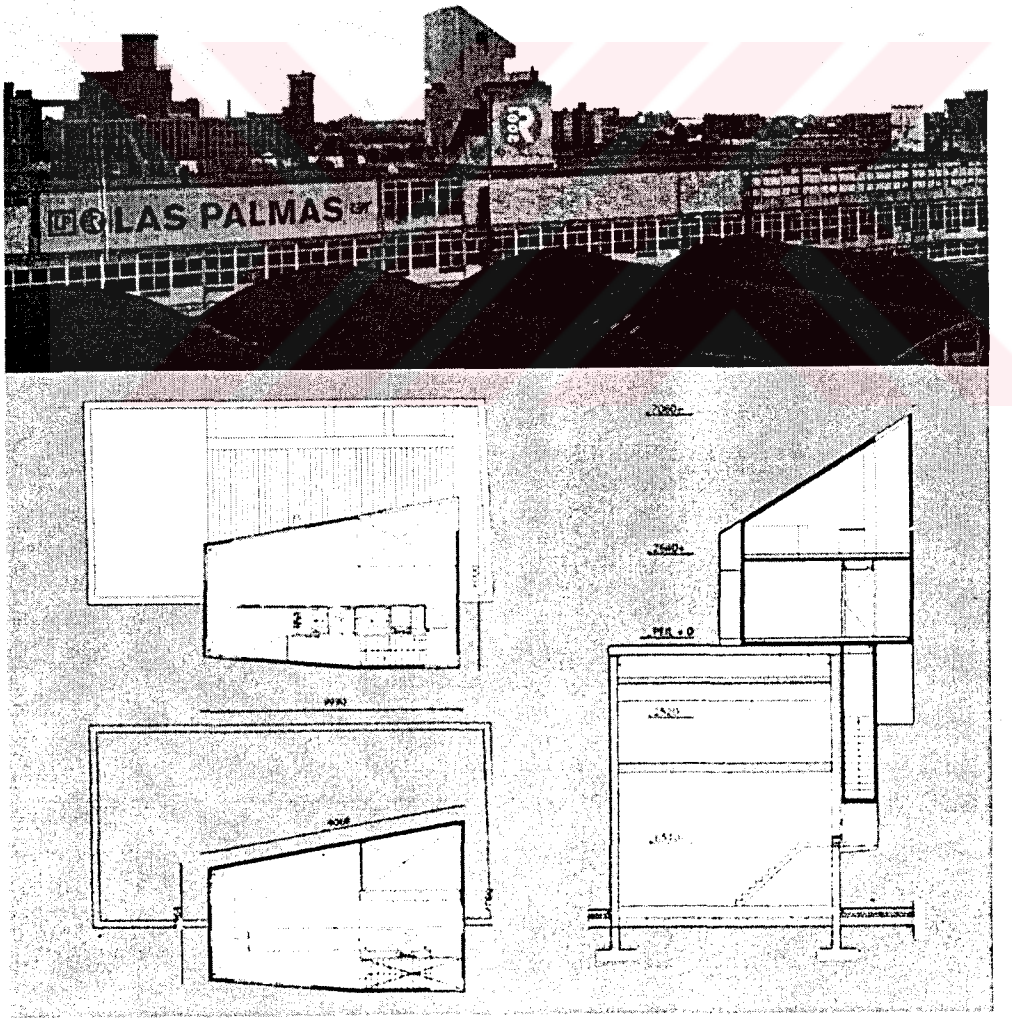

Fig. 3.29 Built parasite in Rotterdam by Mechtild Stuhlmacher, 2000.

4. HYBRID HOUSING

4.1 Hybridisation

> "That, so far, no generally applicable law governing the formulation and development of hybrids has been successfully formulated can hardly be wondered at by anyone who is acquainted with the extent of the task, and can appreciate the difficulties with which experiments of this have to contend."
>
> *Mendel 1866*

Hybridisation is originally a genetic concept. It can be traced back to Aristotle who contended that certain animal species are a result of spontaneous crossbreeding; for example, the giraffe is born from the camel and the leopard; the ostrich from, again, the camel and the sparrow. However, it was not until the 19th century that the true scientific dynamics forming the basis of hybridisation of life-forms were inquired into. They were Kölreuter and Mendel, two geneticists who established the biological even mathematical roots of this process [Kaplan 1985]. Like Linneaus' taxonomy of plants inspired architecture in the direction of turning type into a classification tool for the following centuries to come [Vidler 1998a, p. 450], discoveries of Kölreuter and Mendel stimulated architects in the end of the 19th century to reconsider their current principles.

Hybrid being a genetic concept in the first place refers to a plant, animal etc. from parents of different species. Thus the hybrid object —be it a living organism like an animal or a non-living organism like a building— has a vague character that does furnish an indication to its parents, but more clearly has a strong identity of its own. There is an icon that stands for all these descriptions —the Manimal [Van Berkel and Bos 1999, p. 80]:

> "The Manimal is a computer-generated image of the hybridisation of a lion, a snake and a human. The manimal does not divulge any concrete information about its complex parentage.

All traces of the previous identities have been seamlessly absorbed within the portrait; they exist simultaneously and integrally within one, cohesive organisation."

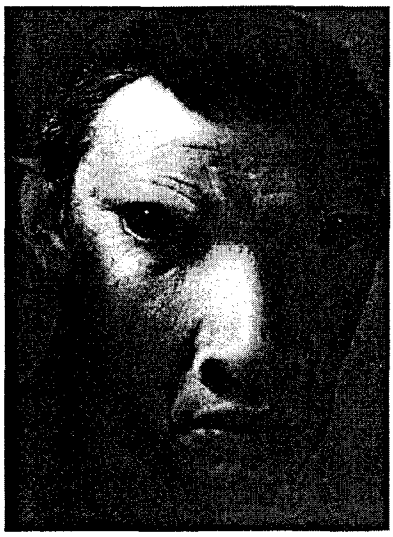

Fig. 4.1 The Manimal

According to Theunissen —in her article about a revitalisation plan for Austin by Venturi Scott Brown and Associates— Venturi is the first to introduce the idea of hybrid in architecture [Theunissen 1999, p.44]. She says, in the book called *Complexity and Contradiction in Architecture,* Venturi does not use the word 'hybrid' but refers to what it today stands for with the expression: 'the difficult whole'. It is a term with which Venturi denotes, contrary to a thoughtful architecture, an architecture that can embrace the everyday reality —an architecture of inclusion [Venturi 1991].

Hybridisation has today become a fashionable concept amongst architects and urban planners. In many gatherings of architectural debates, hybrid areas and buildings are of primary interest. For example, the Europan foundation —which organises activities to create chances for young architects to mobilise their ideas, solutions, approaches, and designs— has chosen for the topic "hybridisation of the Town" for their sixth design competition. As an introduction to the subject, the concept of hybridity is defined in the Europan info-bulletin 23 as follows:

"Today in architecture and urban planning the concept of hybrid area is interpreted in two ways: In the first place it concerns the development of the town or city definition paired with the creation of hybrid areas, areas which once formed border zones between two more or less

> distinct spatial systems, each with its own formal and functional logic, and where the confrontation of both systems has led to a new quality. In addition 'hybridisation' often alludes to an intrinsic quality of building which —as it were— have the qualities of a chameleon to accommodate all kinds of different functions, or in the course of time whose function can change. This interpretation of hybridisation points not so much to the position of the building in a concrete urban context, but more to the new quality which a building assumes as a result of the 'melting' of several functionally-defined building typologies [Europan Netherlands 1999]."

Hybridisation with respect to function given as second interpretation in the quotation above, took an uprising position at the end of the 19th century. Though the combination of different functions within a single structure has been a common strategy through out history (house over a store), around this time when early metropolitan development seized all dynamics, hybrid building was a sober response suggesting combining of multiple functions in one large volume.

> "The hybrid type was a response to the metropolitan pressures of escalating land values and the constraint of the urban grid. With horizontal movement restricted, the city fabric moved skyward. The building form became taller, larger then ever before. Its only constraints were the zoning ordinances and the orthogonal grid itself. Unable to occupy these vast new volumes with an individual usage, functions were combined. The hybrid building emerged" [Fenton 1985].

The hybrid building referred to in the above give quotation, which is taken from the 11th volume of the book series *Pamphlet Architecture* assigned only on hybrid buildings, is with respect to *use*. Hybridity as referred to here by Fenton is about combining disparate functions, mixing uses like dwelling, work, and recreation. The book is a catalogue of mixed-use giant structures. In fact, it demonstrates the opposite of what was advocated by CIAM architects in 1928. Despite the successive repetition of their manifestation about the segregation of different functions during more than 30 years, the hybrid building developed most rapidly around this time. It was the rising urban densities, evolving building techniques, and changing society that determined the distribution. Neither the modern planners who said that different function areas should be separated; nor the architects who said that a building should look like what it is, could stop the thriving of the hybrid building. They were gigantic volumes that housed an auditorium, stores, and offices (Schiller Building 1892); a bridge, factories, flats, and offices (San Fancisco Bay Bridge 1925); the city hall, a

court room, and jails (Dade County Court house and the Miami City Hall 1928); a broadcast studio, newspaper presses and offices, and railroad offices (Daily News Buiding1928). *Pamphlet Architecture No:11* documents some 40 buildings built in the USA that are striking examples of their kind.

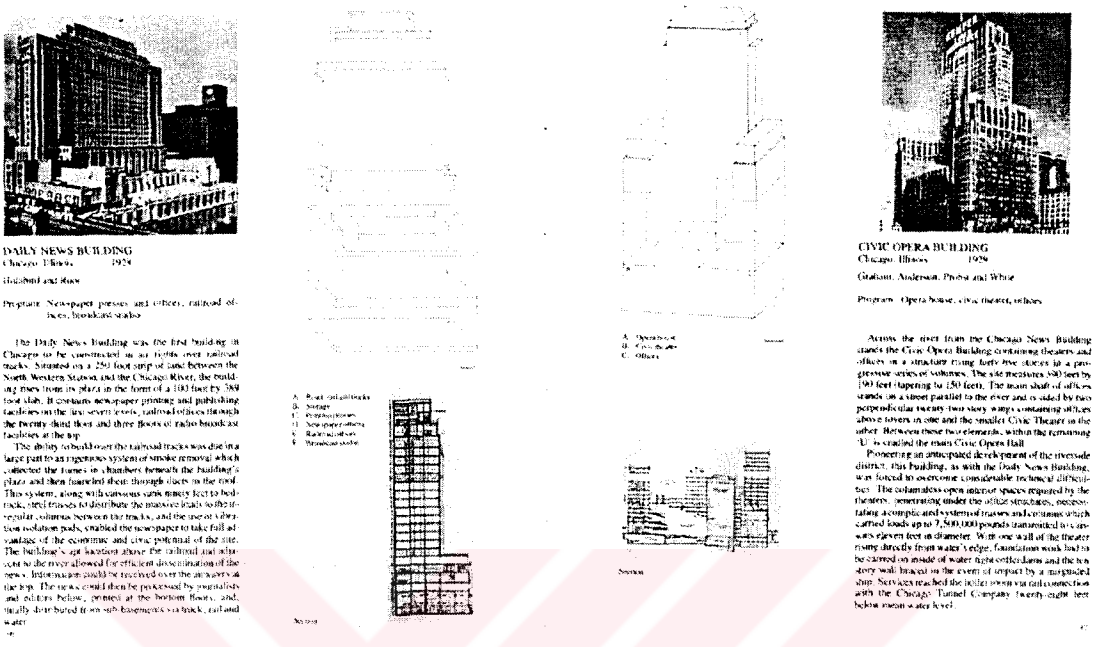

Fig. 4.2 Pages from *Pamphlet Architecture No: 11.*

It was not the idea of mixing uses itself that was new, but to suggest hybrid building as a model for revitalisation of pressurised urban areas [Theunissen 1999, p.44]. The concept of hybridity based on the idea of mixing disparate uses —as suggested by Fenton for the first time as a means to restore vitality of urban areas that are under pressure of intense urbanism— was widely celebrated and accepted. However, using such a inexhaustible concept only under these terms is unthinkable. A hybrid building is not only a building of mixed functions. As stated by the speakers of Europan Foundation, there is another interpretation hybridisation bares today in the domain of architecture and urban planning. According to this interpretation the hybrid concerns the 'confrontation of two systems each with its own formal and functional logic that leads to a new quality'. Thus the components of the hybrid entity conform certain definition and configuration and when these are put together, the outcome reflects an-other, a better quality. In this study, this notion of the hybrid is inquired into on the basis of types because, like argued in the previous chapters, such formal and functional logic is best represented by types in architecture.

4.2. Hybridisation of Housing

4.2.1 Hybrid Housing

Hybrid Housing is chosen as a topic to explain and demonstrate hybridisation with respect to use within housing projects. This kind of hybridisation can basically be observed on two different scales: the scale of the block and the scale of a dwelling unit. The fore, refers to a body that houses a multiple of programmes besides housing. It is no different than what has been explained in the previous section, only it contains dwellings for the greater part. Hybrid housing on the scale of the dwelling on the other hand, refers to a programme for housing that integrates other functions into living function. "Such hybrid housing contains both residential and business activities, with residents occupying and managing both types of space" [Ahrentzen 1995]. Underlined with names such as work homes, duo-homes, live-work hull, hobby homes, house over a shop, this new concept of housing suggests blending of family, occupational, and leisure activities of a household under one roof.

Amsterdam Home Atlas – Living concepts for the 1990's [Oostenbrink 1991] is a publication of the research DRO Amsterdam carried out with the aim to lay down new concepts for living which will help housing producers to realise housing that will optimally match the new housing need of Amsterdam both qualitatively and quantitatively. The reason why such a study had to be realised is that the national policy for housing production during 90's was decided to be shifting strongly towards the 'market' by which the user groups became more influential over the character and contents of the housing offer. The main aim of this study was to introduce the basic elements with which user groups can make conscious choices about their future homes and then can realise these choices. The result of the study is a folder that contains fourteen posters, each formulising a living program oriented towards one of the fourteen target groups. On each page, next to the brief description of the program is a design proposal, each made by fourteen different architecture offices, and an evaluation by the editor. Although the addressing of each program is initially made around the idea of having different user groups, there are other marginal notes in composing these programs; such as income levels, community forms, or life-styles. Four out of the fourteen programs are specifically oriented on

the idea that uses other than living can be integrated in a housing program. Occupational and leisure activities are the first two to mention here because they are the two most related ones to living.

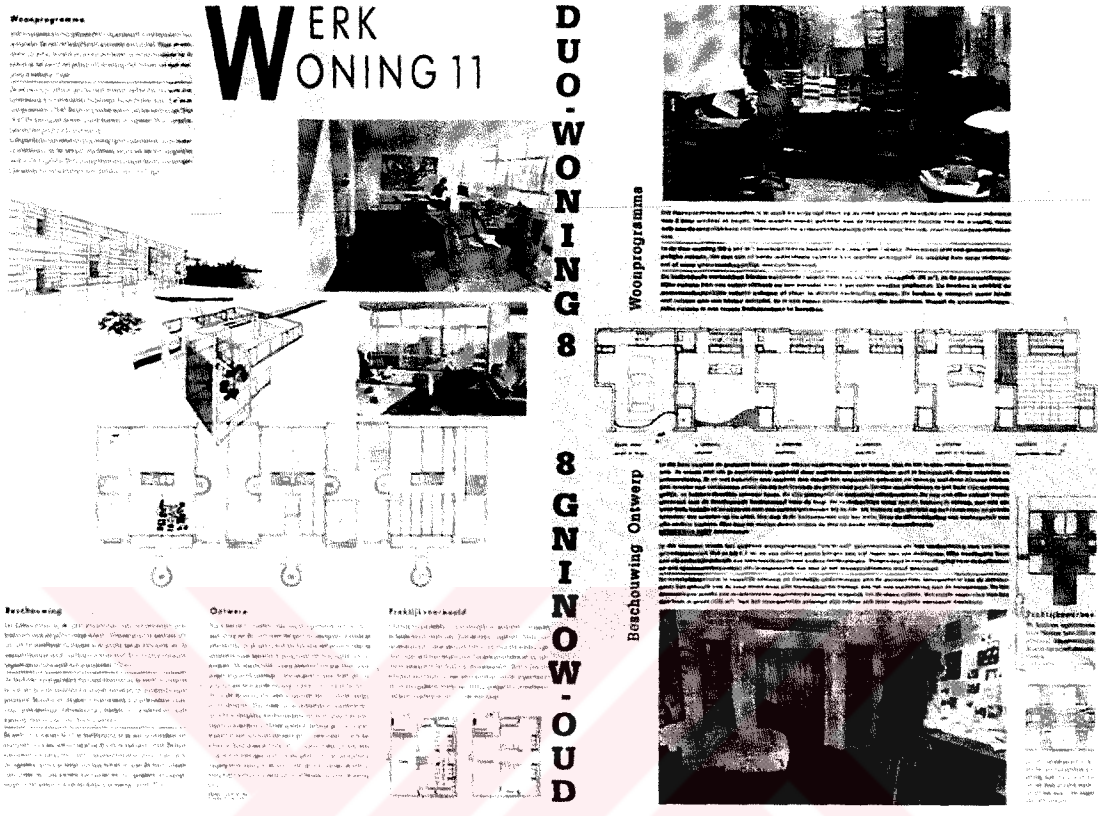

Fig. 4.3 Pages from Amsterdam Home Atlas.

4.2.2 Housing Hybrid

Hybrid Housing is chosen as the topic to explain and demonstrate hybridisation with respect to typology. While discussing the issue of the birth and evolution of types, we said that they exist through transformation in time. Amongst others, hybridisation is one effective form of transformation when it comes to architectural types. In accordance with Argan's definition of types in architecture (see chapter 1.2.3), different types being 'principles that contain the possibility of infinite variation and modification' are cross-matched so as to bring about a new type with a different quality. In the domain of housing, depending on the scale types are conceived, hybridisation can take place in several ways, on several different scales. In all cases, the aim is to offer a differentiated solution. The main reason to strive for differentiation is the desire to keep up with he concurrency going on in the housing

market. Developers need to be able to offer the housing consumer a wide range of choices within one project. On the bigger scale of housing, for example on the scale of the block, complex mixing of several different types of studios, flats, and maisonettes like in a jig-saw puzzle; or combining porch access with gallery and corridor access are some methods to come up with solutions that are interesting for differentiated groups of users. However, user demands is not the only aspect of course to determine these kind of arrangements. In many cases it is the physical planning demands, usually regarding density, which stimulate and encourage architects to create such combinations.

4.3. Recent Housing Situation in the Netherlands

The Netherlands is one of the smallest countries of western Europe. It is situated at the shore of the North Sea, opposite Great Britain, bordering Germany in the east and Belgium in the south. The country roughly measures 400 km north-south and 250 km east-west. It covers roughly a total of 40,000 km^2 (including water surfaces of about 6,000 km^2), 3,200 km^2 of which is built up area [Alfernik & Cuperus, 1997].

The Netherlands is one of the few European countries with a continuous and rapid population growth. The average annual increase in population is 0.65%. The total population is now 15.9 million, resulting a density of 468 inhabitants/km^2. In the year 2040, the population is estimated to rise up to 17.4 million then to stabilise. [Statistics Netherlands 2001, p.30].

In 1981 there were only 5 million households in the country. By the year 2000, the number of households has risen over to 6.85 million with a growth of 23% being the highest rate in the European Community [Directoraat-General 2000]. This massive growth in the number of households is caused not only by increasing population but also, maybe more, by decreasing household size which has dropped from 4 to 2.28 by 2000 [Statistics Netherlands 2001, p.33].

From the beginning of 1960's Dutch economy began to go upwards and gained attributes of a welfare state: rise in incomes, increasing consumerism and a strong sense of social security. This recently gained prosperity awoke the individual self-awareness. Consumer behaviour became more determinative for one's identity and

life-style than the traditional ties to a religion or an ideology. The flourishing will to control one's destiny gave rise to public movements for democratisation of the society in all its facets. Particularly towards the 1970's, people in the Netherlands started to think differently about marriage and the family. New attitudes emerged in with respect to the number of children families considers desirable. Besides couples wanted independence for the wife as well as for the husband. It was the era of liberation movements and growing individuality. Rising educational levels and incomes made it possible to put these new ideas into practice and live up to one's ideals. A very important ideal for many people was to live independently, whether alone or together, without being married and without children. The introduction and acceptance of new methods of birth control made these goals much easier to attain [Van Kempen 1997, p. 159]. Furthermore, young people left home to live on their own at an increasingly early age. As a result of a successful common demand by means of many public demonstrations, the government finally recognised the need of the youth over the age of 18 to have a decent accommodation of their own. It was an additional fact that quickened the dilution of the family and caused it to divide in smaller pieces [Van Dijk 1999, p. 135].

In the current situation the Netherlands is still face to face with a housing shortage. It is not of the kind that arouse after the Second World War but of another: as a symptom of prosperity. The above mentioned changes in the society led to the decrease of the household size, with a rising number of single, two-person and single-parent households. Currently, the number of one and two person households accounts for more than 1/2 of the total number of households and this ratio is expected to rise up to 2/3 in 2015. This enormous increase is expected to come to a halt in 2025 [VROM 1991].

In the meantime, new housing projects have to be developed. Estimates imply that 951,000 houses have to be realised until the year 2010, a large portion of which are ideally houses with gardens. Despite the wide range of new housing possibilities offered in accordance with the above mentioned diversity of user groups, an archetypical house with a pitched roof and a garden pertains as the ambition of many. In the view of the rather artificial environmental attributes and accordingly advanced level of physical planning over the whole of the country, the total area allocated for building up for any purpose including housing is very limited. Therefore this

ambition is quite at odds within the available space, especially in the more densely inhabited region in the west of the country called the Randstad. Major cities Like Amsterdam, Rotterdam, The Hague and Utrecht are the nodes of the region Randstad. The *Fourth Policy Document on Planning (Extra),* better known by its Dutch acronym VINEX, deals with unravelling the conflicts between the environmental relevancies and the user demands. As a result, a total of two million houses —one million for the Randstad and one million for in the rest of the country [VROM 1991]— are at the moment still being constructed. The discussion continues whether or not these new suburban settlements are the best that there could be done.

Fig. 4.4 Rising space claim for urban functions.

New VINEX neighbourhoods, being icons for intensive sub-urbanisation in the Netherlands, are considered to be irrelevant not only because of the threat it directs on the environment but also because of its negative consequences for existing urban areas. Everyday, more and more people leave the cities to live in VINEX neighbourhoods because it is simply more spacey, more green, more safe. They are the higher income groups that can afford to live in the new VINEX's. The cities become emptier and neglected. Besides, the separated concentration of high and low income groups bring unrest to the society [Rosemann 2000]. According to the Ministry of Housing, Physical Planning and the Environment:

> "In the following years, big investments are needed in the quality of living in our cities. Only then we shall succeed to make our cities attractive again to live in also for the people with middle and higher incomes. (...) If not, then more and more people shall permit themselves to turn their backs to the city. More vulnerable groups stay behind and a rising number of neighbourhoods (especially in the ring, around the centre) have problems." [Rosemann 2000]

In the light of these discussion about the VINEX neighbourhood versus the city, brought up mostly by the new generation urban designers and landscape architects,

some are already in the search of new alternatives. Basically, they look for creating living environments which can keep up a qualitative concurrency with 'living outside the city'; make extensive use of the potentials of the city, centrality and urbanity; play with new demands and needs of the information society as well as with the new forms of living together; on the other hand, consider the (physical) limitations that are related with building on urban locations [Rosemann 2000]. These living environments are striven to be realised basically in two kinds of ways: One is via renewal of the existing urban fabric; the other is on regenerated urban locations. Urban renewal concerning refurbishment, demolition and replacement of old housing stock is a very familiar theme from the 70's for Dutch architects, however, this second wave of urban renewal aims at bringing apropos changes regards increasing densities of often spacious neighbourhoods from 50's and 60's. Urban regeneration on the other hand concerns the transformation of *terrains vagues* like former municipal distribution sites, docks or industrial sites, for a second life as residential (or office) areas [Oosterman 1996].

4.4. An Example: Eastern Docklands of Amsterdam

Eastern Docklands of Amsterdam is a recent and good example of such transformation areas. The whole area of the Eastern Docklands (Oostelijk Havengebied) is a former harbour area which dates back to the colonial days of the Netherlands, as can be deduced from the names Java and Borneo. These islands as artificial peninsulas on the IJ river, were for the most part built in the period between 1874 and 1927 to increase the capacity in order to meet the need for larger and larger sea-going vessels. Its primary function was regards transhipment of mixed cargo to inland shipping and to the railway via the then newly built Amsterdam Central Station. After the Second World War, Eastern Docklands lost most of its importance as a result of decrease in activity as Netherlands' colonies one after the other announced their independencies. Henceforth, the western harbours were enough to meet the need. After the last big shipping company in the area, KNSM, closed down in 1979, the area was left to its destiny at least for a period of time during which 'city nomads' squatted the place in every possible form. This was between 1975 —when the Amsterdam city council first decided to redevelop the area— and 1987, when the first phase of this development was completed [Koster 1995].

Fig. 4.5 Situation of Eastern Docklands in Amsterdam.

From 1975 on, the area went through an exciting process during which diverse experimental high-density urban planning designs found ground to be realised. The Amsterdam city council had decided to transform the docklands into a residential area with a density of 100 dwellings per hectare, which is regarded as high density in the Netherlands. There arose a few objections against this decision saying that the existing densely built-up parts of the city were out of date. Luckily, this intrusion was quickly eliminated with the argument that densely built-up does not necessarily mean the same thing as densely populated, because the average number of occupants per housing unit in Amsterdam had dropped from 4 in 1960 to less than 2 in 1997 [Schaap 1998, p.25].

The actual development began in 1987 with the plans for the Abattoir and Veemarkt (cattle market) sites. The planning design was made by an official project group with representatives from Amsterdam's several different municipal departments concerning housing and urban planning. This was the usual, accepted, tried and trusted way to develop urban renewal plans since mid 1960's. The primary objective was to build rented accommodation for the social sector. It consisted of half-open blocks of not higher than 5 storeys with no lifts, parking and public squares. Also the intended character of the site was no different than that of the existing city. The brick city would simply be continued on.

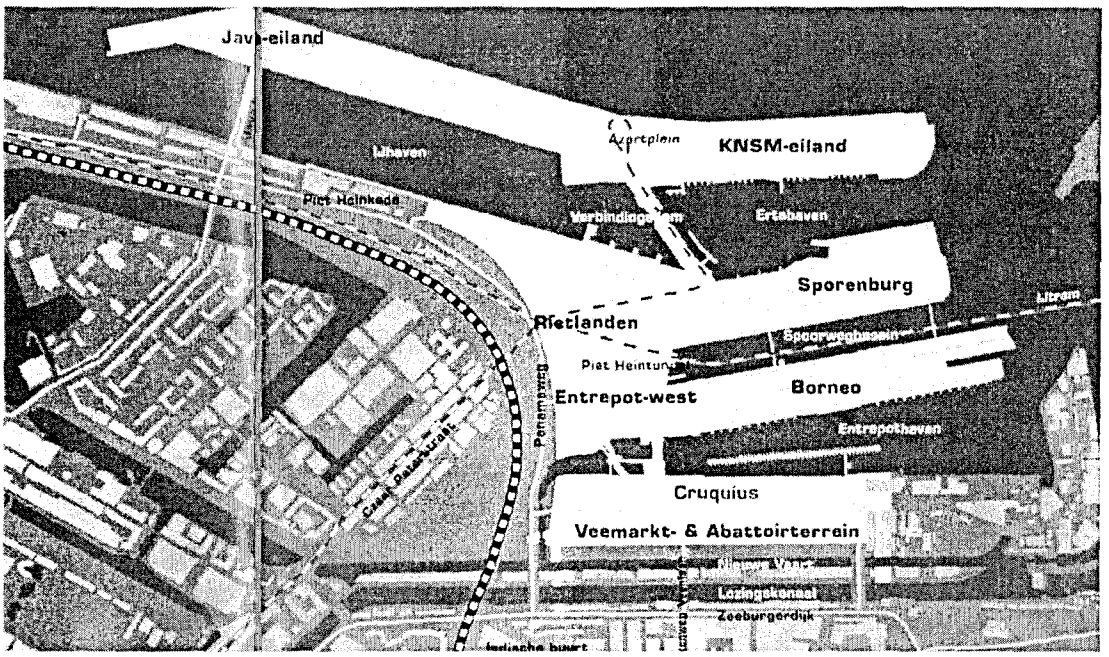

Fig. 4.6 Islands of the Eastern Docklands.

Before the completion of the Abattoir site a drastic change took place in the approach towards the area as a result of the new political formation of Amsterdam's city council in 1986. The new council decided, the social sector should give way to the market sector because there was simply not enough state subsidy to continue 'building for the neighbourhood' . The solution to keep cheap rented accommodation for the lower income groups, municipal policymakers decided, was to encourage higher income groups to move up to private housing and luxury rented accommodation. By their experience in architecture and urban development during early 1980's, commissioning authorities were aware of the importance of a stylish urban planning in the creation of attractive living environments [Koster 1995]. It was decided that the departure point for the coming projects should be to accentuate existing qualities of the site as a former harbour area. It was also decided that external urban planners should be invited to work out variations on the proposal made by the municipal planning department. In the light of this new policy, the second phase of the development, Entrepot-West, was commissioned to a private design office called Atelier PRO. Their design is known for its irregular geometry earmarked with the meandering bit over the water and its cohesion between the buildings and open public spaces.

Next, KNSM island situated at the very north-east edge of the whole planning area was to be planned. Again, the municipal planning department of Amsterdam made a proposal in the form of an urbanistic programme of requirements with which two private design offices were to make an urban planning proposal. The first one prepared by A. van Herk and S. de Kleijn was supported enthusiastically by the nomadic residents of the island but put aside by the municipality because the other plan made by Jo Coenen was following the lines of the urbanistic programme of requirements while the fore went radically opposite to it and also because it was more favoured by the commissioning clients [Cusveller 1991]. Coenen's plan suggested having large buildings and also public space on the KNSM island as to meet the large-scale character of the site and to integrate urbanism, architecture and public space, new development and existing harbour buildings in a monumental entity while drawing a clear separation between the public and non-public spaces, closed and protected spaces. He uses references from the classical city to achieve all the above stated [Cusveller 1991]. His urban plan structurally follows the length of the pier. The building blocks and the main access are parallel to the quays. The dimensions of the new blocks and the main access is derived from the position of the existing architectural objects The plan consists of three super blocks along the southern quay, a line of apartments accentuated with a tower block along the northern quay, and a central boulevard in between these two, which at the end of the island makes a loop around a monumental cylindrical block. A bigger amount of the 1100 dwellings realised within the KNSM development are oriented towards the open water. The others are facing an attractive urban space as much as possible. In many ways, Jo Coenen's plan for the KNSM island laid decisive influence on the plans for the following islands [Schaap 1998, p. 30].

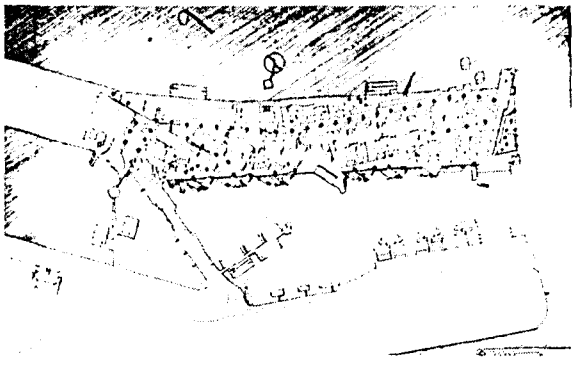

Fig. 4.7 Proposal for KNSM island by A. van Herk and S. de Kleijn

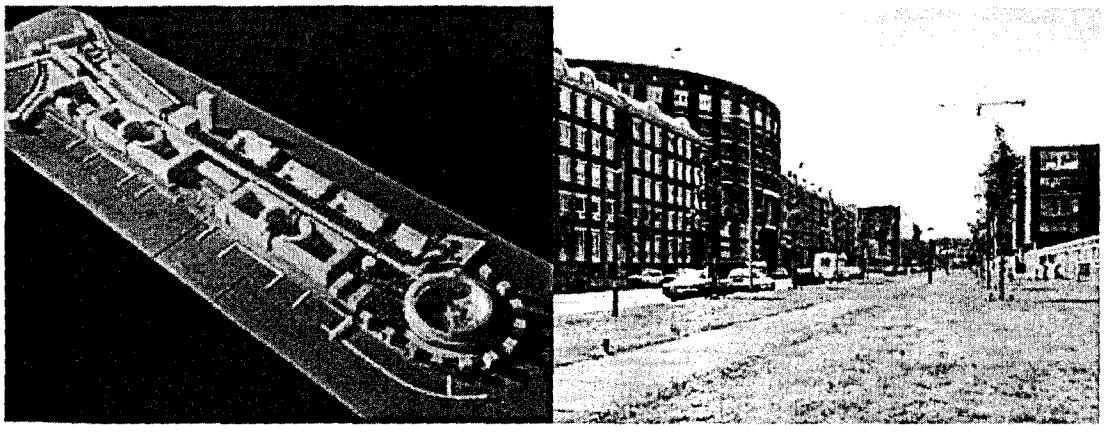

Fig. 4.8 First master plan by Jo Coenen for KNSM island and realisation.

Java island was the next one to be designed and three independent design offices were asked again to send in proposals: Sjoerd Soeters, Rudy Uytenhaak and Geurst & Schulze. The definitive plan is based on the proposal by Soeters. Point of departure for Soeters' plan, which is similar to that of Coenen's for the KNSM island, is the creation of spatial closed character to contrast with the openness of the IJ [Koster 1995, p. 91]. Because the Java island is some 20 meters narrower than the KNSM island, having two blocks of houses on two sides of a central boulevard was impossible. So, Soeters proposed building five large closed blocks next to each other with four canals in between them, so that the inner courts of each block provides a sheltered living environment while the canals establish a direct and more literal relationship with the water of the IJ. This setting gives the less attractive central zone of the island, without a view over the IJ, a desirable extra quality. Along the canals, some 56 houses are built that are contemporary interpretations of Amsterdam's historical canal houses. The choice of blocks of flats along the quays to form these closed blocks was derived from a survey into finding a rational building structure which is capable of assimilating diversity in programme and interpretation as much as possible [Wortmann 1994], because the plan was aimed to be an interpretation of the whole of the *home-atlas* (see: section 4.2.1) The home atlas introduced 14 new concepts for living for 14 different user groups. By the introduction of the so-called 'stamps principle', Soeters gives a specific interpretation of the home-atlas. Each one of the four 'stamp's measuring 27 m (5 bays of 5.40 m) in width is a cluster for dwellings sharing a common or at least similar life-style under the names: Work-Hobby, Families, Low-Budget and Representative [De Graaf 1997]. High blocks of

flats placed on a logical basic matrix of 5.40m creates an urban structure similar to a traditional continuous street façade —a sort of inner city on the water [Schaap 1998, p. 30].

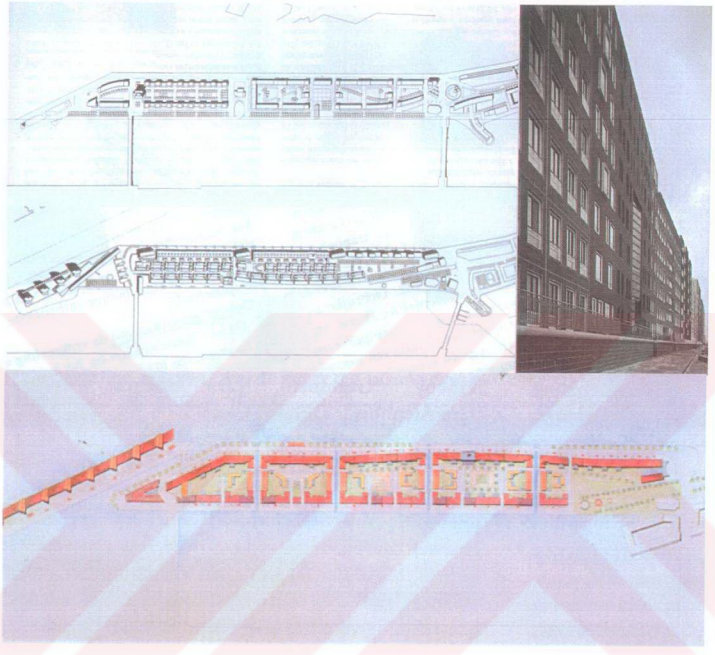

Fig. 4.9 The three urban plan proposals for Java island and the final street image.

In 1992, planning process began for the islands Borneo and Sporenburg simultaneously. The purpose of the decision to see the two islands as one planning area was to be able integrate the intervening Spoorwegbassin into the urban plan not as a border, but rather as a connective inlet —"a city square of water" [Schaap 1998, p. 31]. Around the same time, some other planning points of departure were formulated by the planning department of Amsterdam, concerning the scale, density and the character of the new development area. As was the case all over the Eastern Docklands area, a large number of dwellings (about 2500) reaching a density of 100 dwellings per hectare were to be developed here. However, building middle-high again like in the rest of the docklands' development was not favoured. Rather a low

rise development was what they were thinking of. Low rise had its advantages: in this way the neighbourhood would distinguish itself from the surrounding large-scale development and this would contribute to the desired differentiation in the range of dwellings and living environments. Besides, the market was demanding more and more for ground-accessed low-rise dwellings. In the light of these prospects, they reached back to the study Rudy Uytenhaak performed earlier for Java island. In his concept Uytenhaak proceeded from stacked dwellings each of which had a front door on the street, and its own exterior space. He showed that by organising the dwellings in a compact system of plots with small streets, high density could also be obtained [De Maar 1999, p 8]. According to him, dwellings with an own door on the street offer better possibilities for the relationships that inhabitants can establish with the public space and the neighbours. Concerning the exterior space of each dwelling Uytenhaak found out that having a front or a back garden was of minor importance as long as dwellings possess an interesting spatial quality by means of terraces, balconies or patios [Melis & Roodbol 1995]. Though it seemed very possible, the municipality decided that this type of ground-accessed dwellings had to be investigated. In order to find out about further possibilities, six architectural offices were asked to perform a deeper study into ground-accessed dwellings in high density. They were offices of Rudy Uytenhaak, Claus & Kaan, Liesbeth van der Pol, Van Berkel & Bos, Heren 5, and Holvast & Van Woerden. The results were all very different from each other, however, all confirmed and concluded that this concept of 100 dwellings per hectare with a maximum of four storeys (no more than one dwelling on top of another) was practicable [De Lange and Schaap 1995, p. 10]. Following this, three other offices were asked to make an urban planning proposal based on the results of the previous studies. They were the urban planning office Quadrant, architect Wytze Patijn and West 8 landscape architects. The plans were asked to fulfil the following requirements: smaller scale than that of KNSM and Java islands; balance between simplicity and variation, individuality and collectivity; possibilities for functional change in the future; a wide range of housing types [De Lange and Schaap 1995, p. 11].

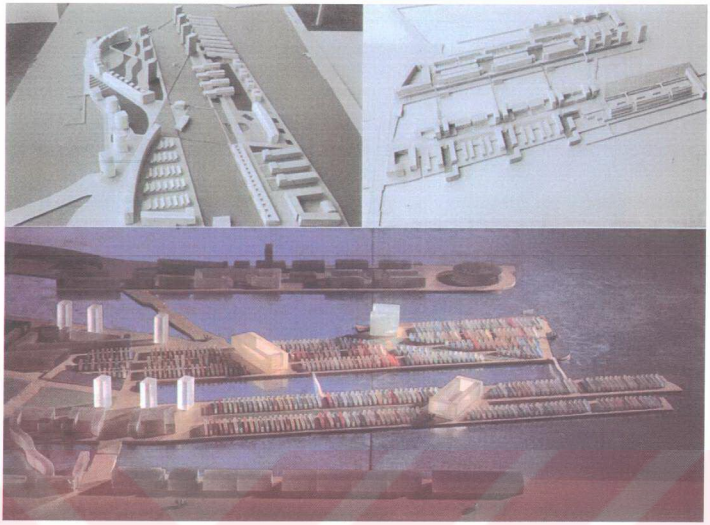

Fig. 4.10 The three urban plan proposals for Borneo Sporenburg.

The winner was Adrian Geuze - West 8 landscape architects with their 'sea of houses'. It was a unique plan in which a homogeneous spread of low-rise back to back houses were arranged in an alternating rhythm of open and closed spaces — 'strips'. The *sataccato* of strips were interrupted by three large blocks which Geuze himself refers to as 'meteor's. The meteors are decided on not only because it was only in this way possible to reach the desired density of 100 dwellings per hectare, but also because they provide orientation points in the homogeneous texture of the low-rise and establish a relationship with other sculptural blocks in the vicinity [Koster 1995, p. 108].

This fascinating plan for Borneo-Sporenburg is a result of a series of inventive efforts towards finding new ways of living in the urban areas again. Starting with the design for the KNSM island, every following design was a further interpretation and elaboration of ideas introduced in the previous proposal. In this sense, the total of the development process for the Eastern Docklands of Amsterdam was fruitful to deliver such an ingenious plan as for Borneo-Sporenburg. It's a new perspective for high

density urban development to be tried out in some other urban contexts in coming years.

4.5. Hybridity in Eastern Docklands —'Sea of houses'

Reaching such high density with privately accessed low-rise dwellings was an unprecedented attempt. Therefore, the dwelling type that would make up the so-called 'sea of houses' could not be a regular type of dwelling; it had to be reinvented. Adriaan Geuze introduced the so-called 'strips' principle on the basis of typological studies carried out previously by six other design offices. The strips consist of slim building volumes of 4 metres by 35 metres over three floors, arranged in an alternating position with equal size open spaces [De Lange and Schaap 1995, p. 15]. This is Geuze's variation on the classical Amsterdam canal house which has a front and a back house with a patio in between them. The idea of the canal house is favoured more in this context in comparison to regular row houses because of its compactness and urban character. Hereby, "a great deal of what would normally be designed as public space is included in the plots to be developed, thus creating space within the walls of the buildings" [Nicolin 1997, p.80]. A patio, roof terrace or loggia is the form of this private outdoor space. Another possibility to contribute to the will to minimise the open public space is the realisation of private indoor parking, whereby the street profile can be narrowed. In order to compensate the loss in light penetration, ground floor height was decided to be 3.5 metres, thus greater than that of the first and the second floors.

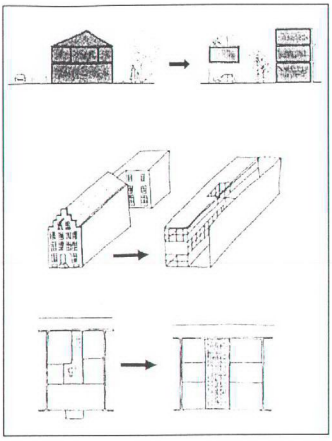

Fig. 4.11 Transformations.

In the light of these points of departure, 36 architectural design offices investigated the types of residences. "Although the diversity in the types of dwellings was great, it appeared that principally the patio-residence was a good solution for the assignment set." [De Maar, 1999, p. 14]. The patio dwelling being a vague typological definition (see: section 3.3.3) offered space for interpretation and experimentation. Eventually, there arose roughly five different types of low-rise dwelling [Koster 1995, p. 121]:

> "-the strip low-rise dwelling or 'wallhouse';
> -the back to back drive in low-rise dwelling;
> -the back to back light court dwelling;
> -the low-rise dwelling which forms part of a courtyard and;
> -the low-rise dwelling which forms part of an 'Emmenthaler (Swiss) cheese' bored through by light courts or corridors."

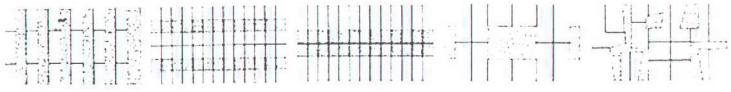

Fig. 4.12 Five interpretations on patio dwelling on Borneo-Sporenburg.

Each of these types are actually hybrids of the patio dwelling. They all have the basic idea of the patio and through hybridisation this idea is transformed to reached a

different configurational and functional quality. The wallhouse has an extended patio which contributes to the spaciousness of the dwelling itself and the transparency of the street image. Hybrid of the patio dwelling with the drive-in house saves the narrow streets from parked cars. In the case of the light court dwellings, the patio functions not as a garden to be sit in but a light source for lower floors. The fourth variant changes the strict private character of the patio and gives it semi-public character. Finally, the 'Swiss cheese' principle helps producing divert dwellings in one building volume.

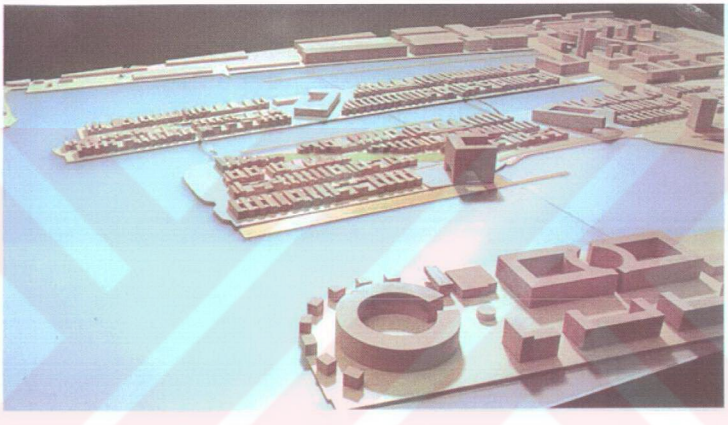

Fig. 4.13 Impression of the final roof-scape.

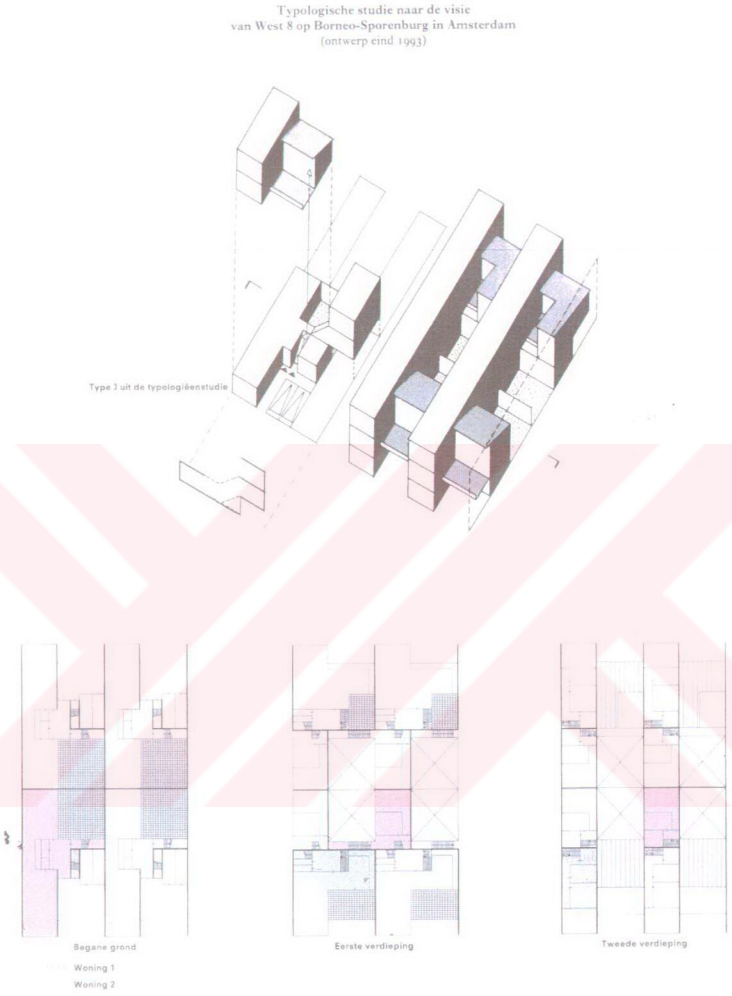

Fig. 4.14 Typological study on the vision of West 8 for Borneo-Sporenburg by Uytenhaak.

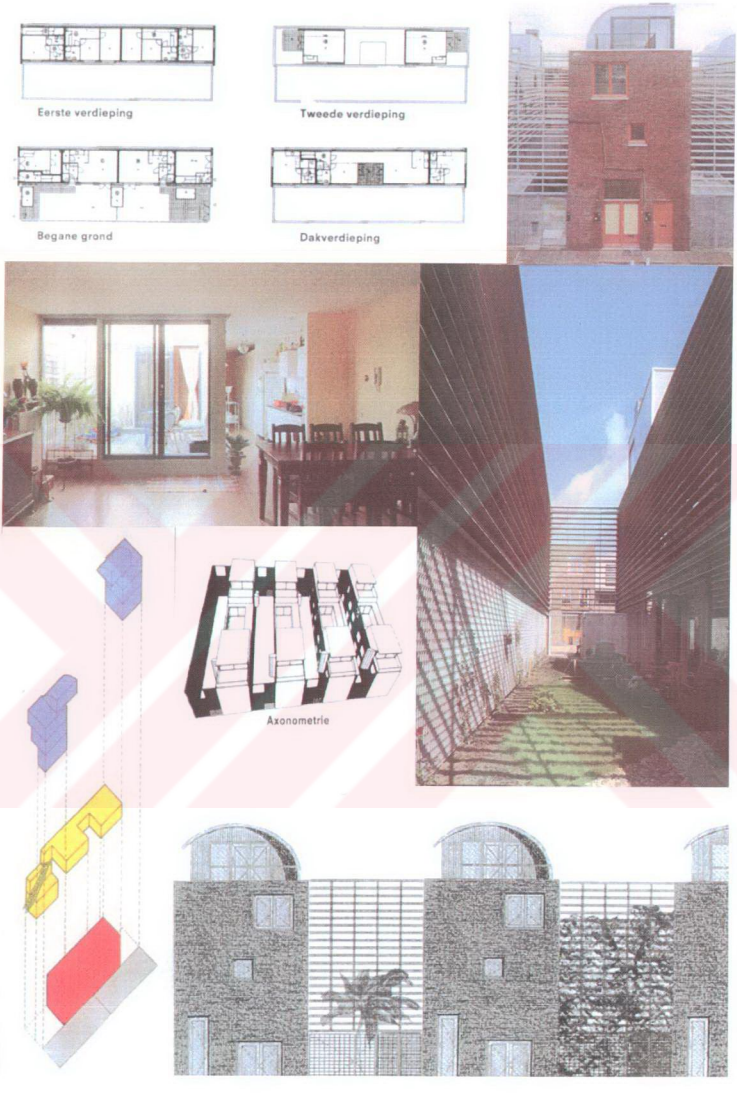

Fig. 4.15 'Wallhouse' by JA Atelier.

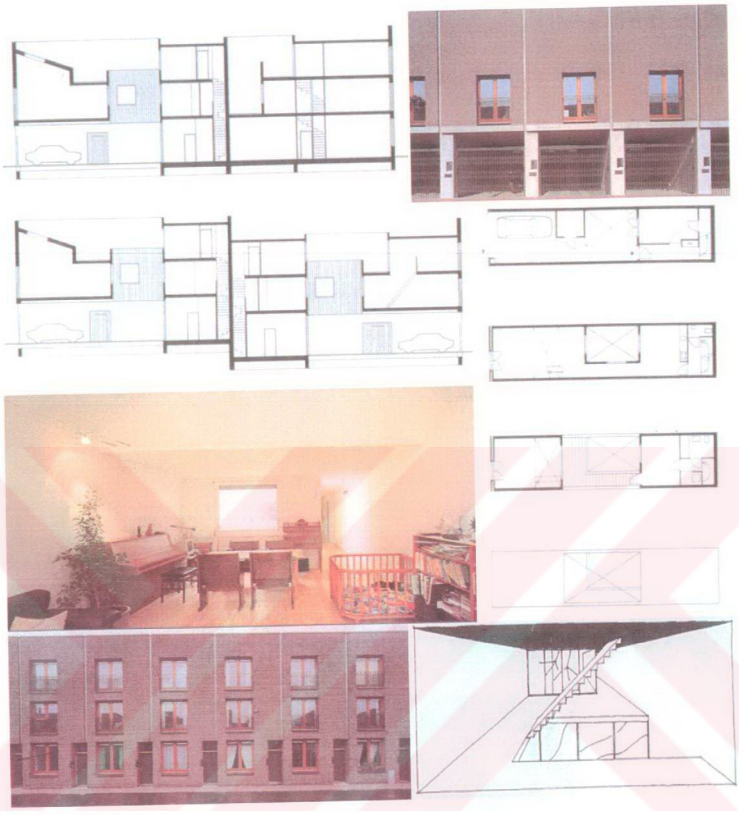

Fig. 4.16 Drive-in patios by Claus & Kaan Architects.

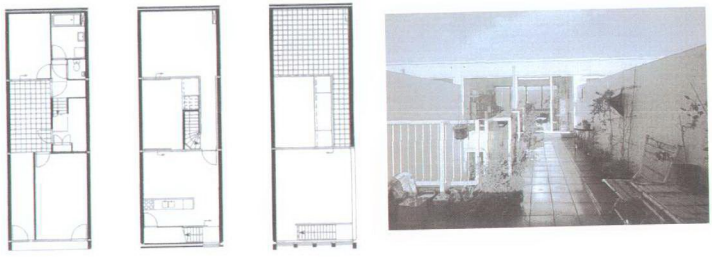

Fig. 4.17 Light court dwelling by Van Sambeek &Van Veen Architects.

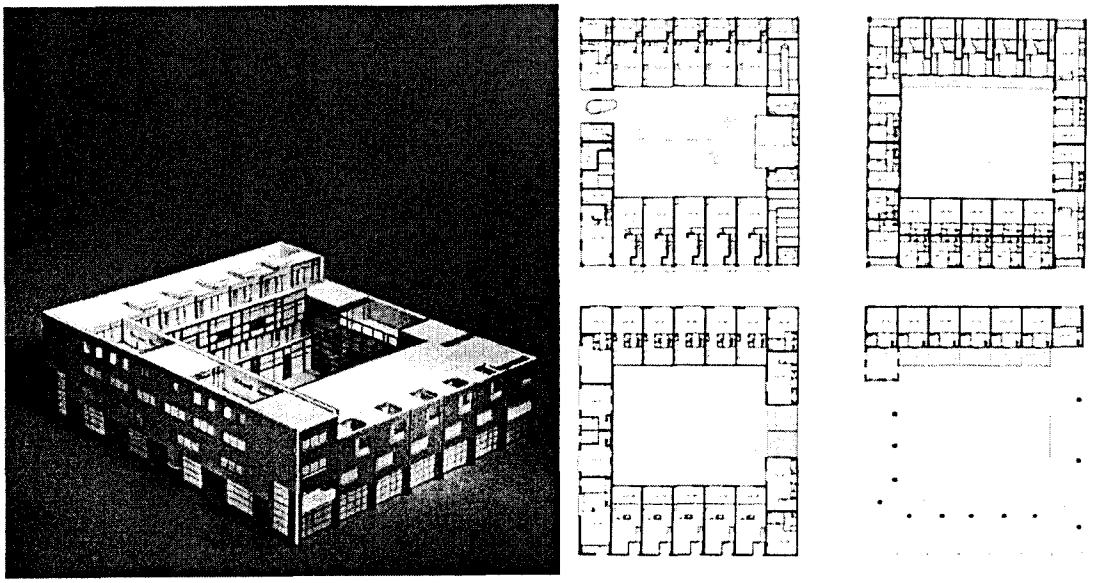

Fig. 4.18 Courtyard variant on the patio dwelling by Marge Architects.

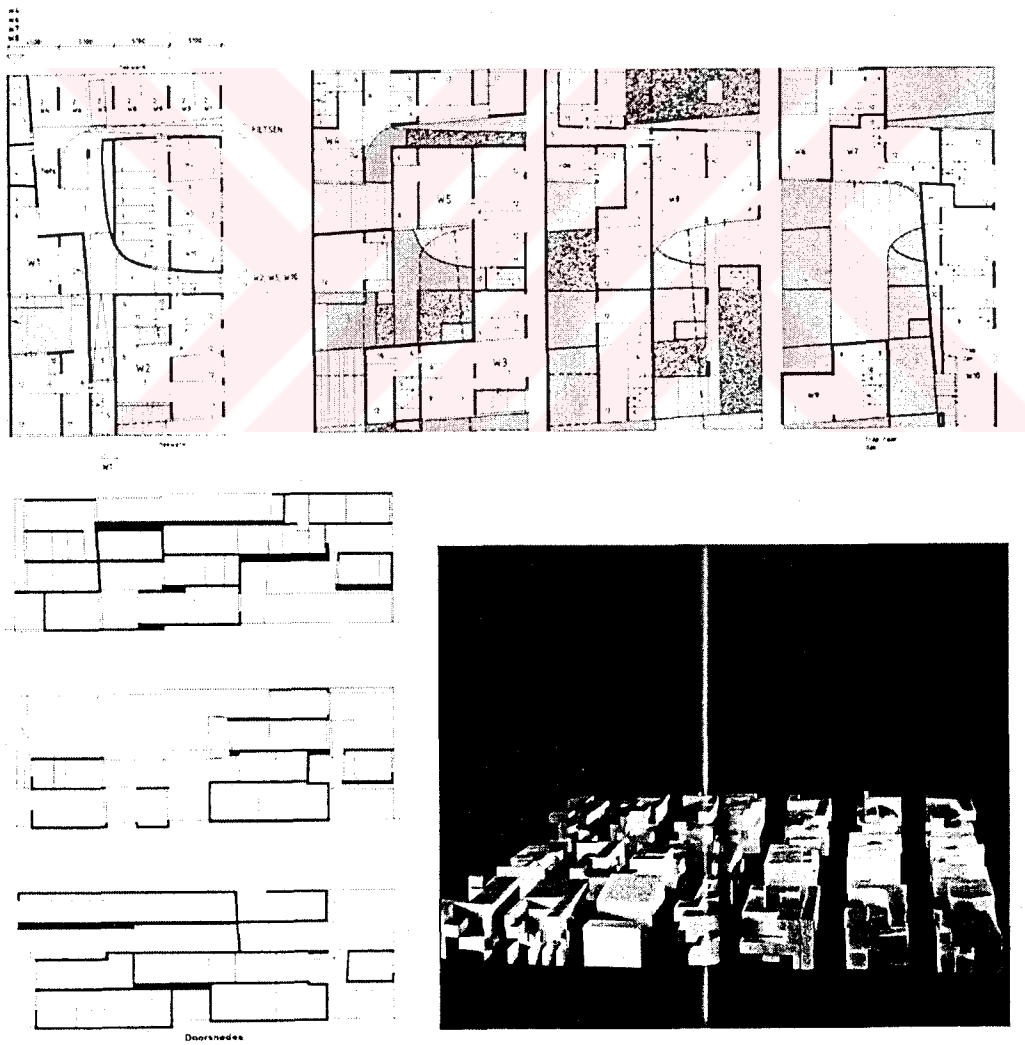

Fig. 4.19 'Swiss cheese' patios by Berkel and Bos Architects.

4. CONCLUSION

According to Leupen, in practice, there are three different though complementary ways in which typologies are used today: "First they are used as an instrument for systematic architectural and planning research; second, as a means of investigating the divergent aspects of architecture and planning as mutually related. Finally, typologies are exploited as a design tool" [Leupen 1997, p. 139]. Typologies being used as a design tool functions primarily as fixed, known, familiar entities which offer ground for further elaboration. Design process is a process of investigating different possibilities and negotiating between them. These negotiations take place within the individual designer as well as amongst different parties of a design team. The primary means for successful negotiation is good communication. Here, typologies play an important part as signs. They stand before the designer(s) in different forms (signifiers) and refer to certain concepts (signifieds). Hereby designers can bring out, define and, discuss different ideas with less effort and confusion.

Moreover, through this process of negotiating, the designers can constantly modify the contents of the typology. The final goal hereby is to reach a somewhat better quality. Hyridisation is one fruitful way of making these modifications. Talking of hybridity, there are two immediate, unavoidable, and contradictory concepts concerned which give us a reason to dwell on the subject of hybridisation. First one of them is called the 'hybrid vigour' or 'heterosis'. As also evident in the name, it is a concept that explains the crossbred organisms having a greater hardiness and capacity for growth than their parents. Second one, 'hybrid sterility', on the contrary explains that hybrids of different species are infertile and cannot actually reproduce. Neither of the genetic nature of these two concepts has yet been brought completely to light. Still, they contribute to the stimulation of discussions about hybridity in many other fields other than genetics; such as architecture.

"(...) buildings, in a sense, have also been 'crossed', like animals, to produce Hybrid Architecture. (...) despite their idiosyncratic and even strange manifestations (hybrid) buildings possess the common idea of **heterosis** or **hybrid vigour**. Each example, no matter which of its formal, functional or urbanistic elements might predominate, ascends to a richer, more elemental wholeness, invigorated by a poetic union of its minor parts. Curiously like its cousin in genetics, architectural 'hybridisation' also can breed **sterility** in its offspring: those all too familiar, barren mixed-use mega-structures that have invaded out urban and rural landscape. The taut line between **vigour** and **sterility** dares our mastery" [Kaplan 1985].

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APPENDIX

Interview With Architect Mechthild Stuhlmacher

Mechthild Stuhlmacher is the architect who designed the Parasite building on top of the roof of the Las Palmas building in Rotterdam. It is rather a recent project which has yet not found any ground to be published. The following interview is reference to section 3.3.7 which talks about the concept of parasite. In the interview Mechthild Stuhlmacher she tells about the concepts behind the whole parasite project and their significances.

- **Pınar Seyrek:** How did the *parasite* project emerge? What are its departure points in general?

- **Mechthild Stuhlmacher:** The whole set up of the *parasite* project in the first place was Swedish. It really doesn't matter who brought it to here. It was based on certain basic issues on Dutch housing. First one is the famous issue of 'light urbanism' which is recently introduced by MVRDV. The second one is the 'uniformity'. That is something, which is from an urban point of view, very problematic in Belgium. You can't really see or re-judge Dutch housing without looking at least a little bit to Belgium, it is fundamentally different. This makes it actually quite interesting.

- **P. S.:** In what way?

- **M.S.:** Well, Holland is a country with a long tradition of urban planning and they have it rather good under control. They are quite ambitious and even municipalities nowadays have a lot of power to employ an urban planner and he is again supervising also the developers and the architects. It does not always happen in the way one would wish but still there is some sort of power for the urban planning and that is why individual housing and private clients

do not exist in the Netherlands. In Belgium it is completely the opposite. There is no tradition in urban planning. It started actually to aim to control the urban development from an urban point of view only, say, five years ago. Somebody like the Rijksbouwmeister exists since, I think, 5 years only. You still don't see it in the landscape at all. Majority of the houses are private and there is no urban planning. They just build all these millions of little houses along the roads and if you drive along the normal countryside, you don't see any free piece, maybe 100 meters of vast and then it starts again. There are roads and roads and roads, and all those different villages sort of melt together. It is just one big urban sprawl.

- **P.S. :** Is Belgium the only example to this kind of development in Europe?

- **M.S.:** In Belgium it is the most extreme.

- **P.S.:** Because the story is quite familiar to me. The lack of urban planning is way more obvious in Turkey. So, I personally can quite easily grasp the state of the Netherlands in terms of urban planning.

- **M.S.:** In Germany there is a lot of private housing but it is quite under control. The landscape in the open space where no one lives is sort of a sacred thing. Also the country is much bigger. You have a lot of space that is much less densely populated than in Holland. The figures in Belgium are very similar to those in the Netherlands, but they are two extremes on the opposite of each other. The cities in Belgium work really very well. They are very old, beautiful and dense. They have a certain characteristic. But the countryside is actually already completely gone. There is no such thing as a Belgian forest; except the Ardennen. From the architectural point of view, this creates a sort of an architectural culture which I find interesting. I often regret that in Holland it is completely missing. In Belgium, all these small practices can actually experiment, talk to clients and develop very personal projects. Some are very sweet, some are very beautiful, some are very modern. There are all kinds of these architects who could never exist somewhere else other than Belgium. In Holland there is more of a universal main stream trendiness. From the urban point of view, it is not so important, but it's something which

is always interesting to me. Belgian work has something fascinating. When we started to set up the project we had to find a way to address Dutch themes, introducing something of this freedom countries like Belgium know. Industrialisation and prefabrication are big issues as well, since there is lots to do about it in Holland. It's very much the technical part it has all to do with the architecture. So we decided this should be our third theme. We have the personality - uniformity theme and than we have the prefabrication technology, it is something we would like to address. And via this advanced technology it might be possible in the Netherlands to re-introduce personal differences. Because the whole economy does not work like in Belgium anymore. There are no contractors who are crafts people. They do exist but they are enormously expensive and they do only very specialised things like reconstructing old churches. But for normal housing projects you just have normal contractors and they build whatever they are used to. As soon as you ask something they don't know, either it's extremely expensive or they won't. They just refuse because there is so much work, they just don't need it. On these small jobs it's impossible. But there are some people who want to invest in prefabrication technology. So we thought, we could you address that in a certain individual way via factories who could reintroduce the architectural quality and the individual differences. That's why we invited some 30 architectural practices from all over the world to design objects addressing all these themes.

- **P.S.:** Thus, there are three themes: light urbanism, individual differences and prefabrication

- **M.S.:** Yes. We gave light urbanism another direction because it is an idea that works for the open countryside and that hardly exists in Holland. What we think is that the known light urbanism makes only sense if it takes place right in the city itself. It is not a way to touch or not touch the open countryside or nature. If you just leave it as it is and don't touch what is still nature in Holland, and only concentrate in the inner cities, then, we say —that's sort of our polemic— you'd still find so many different places that you could use in many sort of ways that the whole light urbanism is actually not necessary anymore.

- **P.S.:** Not necessary?

- **M.S.:** Not necessary anymore. It's good idea but it's not necessary anymore because you still have so much potential in your initiative, you don't need the extra space in the nature. If you'd take all the water surfaces for instance, you'd have lots of new space. This is a very similar, smaller scale version of what has happened in the Eastern Docklands of Amsterdam. Of course it's a big official development, but they use also inner city sites that have a lot of potential. If you use this prefabrication technology you have the technical means to build in these kind of locations because in all these strange locations it is very difficult if you have standard building materials. It is the prefabricated building technology that makes it possible to build in these locations. Otherwise it's simply too expensive. If I start to bring all kinds of bricks on the wall, or little sticks of timber have a building site of half a year on a roof like this, it's simply unaffordable. You have a crane that costs *f*500 an hour if you use it for a day it's ok but if you use it for a month, it's impossible. So, you have to prefabricate everything. Hereby, you can also create the possibility that each project is something on its own without the interference of contractors. Contractor on the site doesn't have to do anything, it's already done. It's a computer pre-cut thing. You can't do anything else but put it together. Moreover this could be repeated several times. When I tell sounds much more complicated than it is. It's actually very simple. We take all the lightness —the structural lightness and the technical lightness– we bring it into the city. There we fill all these little gaps. It is actually nothing new. It happens by itself in Asia where space is so extremely expensive. In Tokyo, you can buy a building site of 2 m wide and you make some strange sort of object in it because simply can't afford a centimetre more. They are really very spectacular, extremely small things can exist. This does not happen in Holland... yet. I think via such a polemic project, you get interesting and inspiring aspects.

- **P. S.:** It's a might, it's always a might.

- **M.S.:** Yes, it's always a might and it will take a long time. Unless somebody thinks of investing in this, it won't have much influence with these kind of

initiatives. But at least we built this one and we have an exhibition of many models of all these participating architects. When we first started to talk to the architectural responsibles of the Cultural Capital 2001 to organise the exhibition, they were very interested. They thought the story would get realistic only if we manage to build one of them 1-1. Then they offered us this location which is actually fantastic.

- **P.S.:** Did the exhibition go somewhere else afterwards?

- **M.S.:** No, but it had been to 4 different galleries before. It's a lot of work and effort to make an exhibition travel. After 5 times we think its enough.

- **P.S.:** Do you have a documentation of the exhibition?

- **M.S.:** Yes.

- **P.S.:** Ok, now a little about the built parasite. The material and technology is from Germany, Merk Holzbau. Isn't there a similar one here in Holland?

- **M.S.:** No, there isn't. Timber has no tradition in Holland. Because the quantity of the normal quality timber grown in Holland is simply insufficient. But this kind of uses, of course make a very different story because in this kind of laminated technique, you don't need very big trees and you don't need very good quality timber. It's actually very simple. It could be something interesting for Holland because it's a very sustainable technology. But, the technique is just one aspect. We had to show that, to build something like that could make a location, which nobody has ever seen before, accessible. Everybody goes up there and says "what a place is this, what a view, and how wonderful is Rotterdam!" all these kinds of things. When you look in the guest book you see that people are impressed just by the simple fact that they can be there. A third aspect of this project is the way it functions. The building itself works literally parasitic because it's connected to the water and the electricity of the main building. One other aspect we wanted to refer to was prefabrication. We find it is never used enough. Prefabrication technology means you have to prefabricate something somewhere in a factory. You have to transport it afterwards. In Holland you

have certain specialised firms who do this usually in a very modular system. That's always this 3x3 metre container module. This determines the Dutch prefabrication technology completely. There is almost nothing else then this. For the organisation and the finance it hardly matters if you transport it for one hour or for ten hours. Therefore, you can actually make use of all other technologies that are developed all over Europe, all of them very interesting, very different. The one we used is just one of the solid timber systems produced in Finland, Switzerland and Austria. The basic principles are similar but there are so many different versions of different timber factories doing interesting things. Besides, there is not only timber. All kinds of plastics, metal frames and so on are developed in other countries. What is really important is to choose whatever suits you here best for this specific project. As I am German, I knew this material, it was easy for me to work together with them because I speak their language. It was simply very interesting for me to try it once. Another architect would try something else and this is what makes this kind of a project possible. We made a design and talked to the people in Merk before we had the money. We were not so sure yet. Beginning of February we had all the money together. Then, all the lorries came from Germany with the prefabricated elements, they constructed the raw construction, then the whole shape in four days. That was the most amazing week. You really see it grow, it goes so fast.

- **P.S.:** Was it surprising even for you?

- **M.S.:** It was very surprising for all us. I had never been to that roof before. There was only one stagier who climbed up once because he is a big mountain climber, not suffering from vertigo. He looked at the quality of the roof surface, but we had not seen it.

- **P.S.:** What material is it actually? Is it concrete?

- **M.S.:** Yes, it's a concrete block. The Las Palmas was originally planned to be one floor higher. This is the original core with two elevators, a small one and a big one, a big staircase and some sanitary units, all in there. We use this thing as a base.

- **P.S.:** Is it still standing there?

- **M.S.:** Yes.

- **P.S. :** I thought it was supposed to be somewhere else by now, Hoogvliet I guess??

- **M.S.:** Yes, but we haven't arranged it yet. In Hoogvliet we hope to realise more things of our project. We have invited many architects to think about interesting things. The reason why we built this first one ourselves was not only because we wanted to do it ourselves but also because it would not be possible to do it otherwise within this very short time. I had to find all the money myself, make the design, talk to Merk, go to Germany and all these things. It would have been much more difficult if I had to coach another architect. It would have cost a lot more time and would be just half as rewarding. This was an enormous effort especially because of the finance. This you can't really do for someone else. It's something you do for once in your life anyway ☺

- **P.S.:** So you intend to assign other architects for future projects?

- **M.S.:** Yes. We also started this one, the Las Palmas, asking a Croatian member, Njiric+Njiric, to built there the pavilion they did for us for the exhibition. It would have been a lose object on the roof of the Las Palmas building. That was before we knew that this big lift building was there. We just didn't know the location well enough. Because it is very visible but if you just don't know it, I had never found it so obvious.

- **P.S.:** Obvious?

- **M.S.:** I thought Las Palmas was a flat thing. I had never realised that there was such a big thing on top of it. Of course when we first went to see the roof, it was already actually impossible to have the Njiric building there. It makes no sense at all to have a lose object sitting on the big flat surface next to this gigantic concrete block. Besides, we had conflicts with the Fire Department. We were not allowed to have the public going to the pavilion unless we secured the whole roof surface. We had to put security fences all

round the roof or make a path with fences or something like that, ugly. In that case the concept would be completely gone.

- **P.S.:** How does it work in this case?

- **M.S.:** In this case, no one can ever enter the roof surface. People use the lift and get directly to the building and then go down back again.

- **P.S.:** I am very curious about how the actual name of the project, paraSITE, came up? Because I know that it stands for many things at the same time. How did the idea of the *parasite* develop in the very beginning?

- **M.S.:** We started off the project in Sweden. They built a huge new neighbourhood in the old harbour area of Malmö. In order to promote this new development, they thought of organising an international building exhibition. We were asked to organise this exhibition. Short after, we realised that all the contractors we could work with in Sweden would be completely overly busy because they had to get all these flats ready before the exhibition starts. So, we thought it would be very practical if we take the idea of prefabrication. It's a very important aspect of the project. We thought of transporting stuff to the site, bringing local workers from all over Europe, getting them assembled there without involving any local contractor –maybe only for the foundation or some preparation work. It would be something completely different than making the building itself. This was the beginning of all this idea. Then we had this vision that all these buildings would come and sit on all these different temporary places in the Malmö area. We wanted to find a name that would combine all these thoughts. So, I started playing around with all kinds of words that has to do with the project, I had many letters. We first made PARADISE out of it. Because we were actually creating a paradise-like situation for the architects where they get a commission and a certain budget but no one to tell him what to do and what not to do. He is really in charge. But "PARADISE —an architects' paradise for Malmö" was not clear enough for the Swedes. So, then we changed just two letters and it became PARASITE. The project itself didn't really change much; it only became completely clear all of a sudden.

- **P.S.:** I guess there are some other projects carrying the same name, what is the connection there?

- **M.S.:** When we first thought about it ourselves we didn't check afterwards whether we were the first ones to use it. For example, if you look on the internet you find quite a few, sometimes as a title, sometimes as competition entries. In *Europan* there are a few *parasite* projects. And then there is Kas Oosterhuis in 1994.

- **P.S.:** I actually thought your project and that one was related. I had read about the *parasite* idea of Kas Oosterhuis earlier and when I saw this, I automatically set up a relationship. Later I found out that it wasn't so. I guess both sides have a problem with the whole situation: they demanded rights for the name claiming that they were the first ones to come up with.

- **M.S.:** Yes it's true.

- **P.S.:** Of course the issue on making parasitic use of the existing urban fabric is very immediate under today's circumstances and lots of people try to do something with it. But I personally think that it couldn't have been more direct than this; it being placed on top the core of the building. How would you explain it would work on other proposed locations, floating on the water for example?

- **M.S.:** It would just be using the existing electricity and sewage line on that street.

- **P.S.:** We say then that it's a *parasite* on the urban infrastructure?

- **M.S.:** Yes. But one very important aspect for the most entries was this word game you can make with *parasite*; *para-SITE*. Next to, on, more, besides other known SITEs. Then again you have it as an abbreviation of "**p**rototypes for **a**dvanced **r**eadymade **a**mphibious **s**mall-scale **i**ndividual **t**emporary **e**cological" houses —with which there is the story of the individual building and prefabrication. Then, you have the parasitic use of the existing infrastructure or the existing place. This is a very literal way. In less literal ways you can develop old places into something else and use it for sometime.

It can also become permanent if desired. All this makes it very different from Light-urbanism. Because in that case, it is all new. New countryside, new sites.

- **P.S.:** So are you proposing this project as a contra-polemic against Light-urbanism?

- **M.S.:** We think if you would develop the inner cities in a very careful way, densify wherever you can, then city extensions are not as necessary as one thinks.

- **P.S.:** Are you putting this a critic against the recent suburban development?

- **M.S.:** Not all. I don't think this is a solution for everything. This is very small scale. But of course it is what it is.

- **P.S.:** How about the future projects?

- **M.S.:** The Steigereiland island on IJ-Burg — IJ-Burg consists of different islands— is one of the first places where you have official allocation for floating homes integrated in the urban plan. They have made reservations for special house boats people develop with our network and our ideas about prefabrication and individual small objects. The usual house boats in Holland are all built by three factories. Those are very standardised, they look like shoe boxes; timber frame shoe boxes. It's such a shame that this fantastic idea —living on the water— has only architectural expression by these three, very pragmatic people. Architects hardly deal with this subject. We think so many more things could be possible and that's why we told the story to IJ-Burg. They were quite interested. We first thought that we'd have many exhibition boats in Malmö. The plan was to bring them to Amsterdam, on a new location. Then, IJ-Burg was delayed for 3 years almost. We still have not build anything in Malmö. So, I don't know whether the whole thing ever happens.

- **P.S.:** Do you mean 3 years time is not enough?

- **M.S.:** No. We had planned to bring what we had built in Malmö and to put them on the Steigereiland. The whole thing depends on timing, but Malmö didn't happen. Still, IJ-Burg decided we could have these places. But it's become very complicated. It has all kinds of deals with different municipalities. It's not extremely interesting. So, I don't know whether this happens. It was just an idea for an interesting water project which we could relate to the *parasite* project, but it was not a very clear relationship. When Malmö was still the plan, it was a very nice relationship. This was an idea to finance it all. Because you can sell it in Amsterdam for very good money because of this fantastic location. If you sell something, then you can borrow money from the bank for the exhibition, and pay it back afterwards when you have sold them. That was a very good deal but, since the whole Malmö has not happened, it's not interesting anymore. But we are now developing other floating home projects and these are much more related to our idea of individual housing.

- **P.S.:** One last question: what were the design aspects for this specific parasite?

- **M.S.:** Very simple. It was very related to the site. We think it should work on another location also but this was in the first place meant as a place to live in. So, it should give some sort of a domestic feeling with some sort of well known house shape without being a caricature. We didn't want to put just a normal shape house on top, maybe also because artists like Kirmeling has just done it in the harbour area. It is a very nice art project, very similar at certain aspects. But it was a statement and a joke. If we wanted to do a very similar thing but seriously we could not use the similar shape. And also all these illustrations of MVRDV or West 8 —In Holland Staat een Huis— and all this Camping-city, Light-urbanism concepts, always stand with this children's house. It works really well to make things clear, but we think time is over where you can only talk characters. I think architects should be able to find adequate forms again, not only quotes. But that was not so easy! We had started the project much earlier than I knew that Kirmeling would do something like that. Not this particular object but the whole *parasite* idea. When the organisation started we had always made similar illustrations but

once it's built, you just can't do it anymore. It's just impossible. Still, the project was connected to a housing exhibition in Las Palmas, and they were quite explicit that they wanted a 'house' on top! Something that would have some sort of domestic feel to it. This was one design aspect. The second was the access. Somehow we had to get there from inside and that makes already some sort of a theory. It was a plan and model study, we had many models until we thought this looks good. And then of course there are all these different windows with different sizes to capture all these fantastic views.

CURRICULUM VITAE

Pınar Seyrek was born in 26.08.1976 in Bursa. After graduating from Bursa Cumhuriyet High School in 1994, she started her undergraduate studies at Istanbul Technical University, Faculty of Architecture. During this time she attended European Association for Architecture Education and Coast Wise Europe international workshops. In 1998 she began her graduate studies at again Istanbul Technical University, Institute of Science and Technology, Department of Architecture. In the year 1999 she went to Rotterdam to follow a design studio at the Academy of Architecture, later worked at the Municipality of Rotterdam for a year and designed a school building to be built in Gölcük together with the senior architect Maarten Struijs.