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Signs and Symbols of the domestic façade in the city

– changes, confusion or decline?

Abstract:

In a time in which 50% of the world inhabitants live in an urban context, a percentage that will definitely even grow, it is important to ask whether the residential building within daily public and anonymous city life still has the quality of privacy and identity of a 'home'.

The on-going PhD research "The façade as an intermediary element between outside and inside" will study the 20th century dwelling in the Netherlands. It focusses on the façade of the collective residential building in the urban context of the Dutch city. The high complexity of functions of the façade makes it a very sensitive element of the house: a functional skin, a boundary and filter between inside and outside and the representational element (a face or even a mask) of the house. The aim of the research is to show the development of the representational and filtering functions of the façade in Dutch residential buildings within the historical context of the last century. Tendencies in design and ideas about the meaning of the façade will be traced. The intention is to obtain more insight into the changes of signs of the residential façade, while focusing on aspects of the (social) filter and aesthetics.

The aim of this paper is to explain how signs within architecture, and more specifically within the residential façade, work as a language, as a part of our communication. Signs are dynamic and they have an interrelationship with public frames of references and current opinions. A method for analysing the façade with its signs will be discussed. A first conclusion will show how the façade communicates in terms of representation and in terms of protection to the city. Some examples will discuss changes of signs or even the confusion or decline of their meanings.

Keywords: signs, communication, representation, identity, privacy

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1.   Introduction

One source of collective pride in Dutch architecture is the very rich history of housing developments, especially in the 20th century. Looking back to the 19th century, this period brought the growth of the cities, not only in the Netherlands, with disastrous consequences for the inhabitants and a lack of good accommodation for newcomers. In 1901 the Dutch government intervened by developing a law to control the quality and realization of residential buildings with the so-called 'Housing Act'. Since the introduction of the Housing Act residential housing was built with support of the government. That time saw the birth of a large quantity of collective housing, which was in fact a new type for the Dutch people, who had a history of dwelling in individual houses. The new collective residential houses needed a totally different system of access. The old pattern grown over centuries, such as the Dutch pavement and steps in front of the house, that offered a kind of veranda to the inhabitant, disappeared (see picture below). Now, the houses were inhabited by more than one social unit, and the old streetscape, with rows of individual houses and their individual appearance disappeared. *Access* and *representation* of the house were meant for a group of social units and no longer for one single unit. This change generated new typologies for the residential building, for the access system and for the aesthetics - especially the façades, offering the often quite large collective residential dwellings a new identity and a new accessibility. Even now, we are looking back at this century, studying the interesting changes and developments of housing. Research concerning these changes is divers, starting with typological research and leading to sociological discussions about the neighbourhood qualities of collective housing in the urban context. This research will focus on the façade of the urban residential building with a focus on the aspect of the face/mask and the social filter between the outside and the inside, the public and the private.

Enkhuizen 1623, front façade Breedstraat 23.
Source: Meischke R. (2000) Huizen in Nederland,
Zeeland en Zuidholland, Waanders Uitgevers Zwolle, p.139

1852-53 Amsterdam, Oostenburgermiddenstraat 85-89, architect H. Hana.
Bron Foto: Digitale Beeldbank Amsterdam

Architecture always has and always will send signs to the spectator. The façade as the representational part of the building often is being compared with the human face as the place of the whole body where we can 'read' characteristic or emotional properties of a person. The face 'speaks': even a single change of a muscle alters the whole impression of the face. Metaphorically speaking the façade is like a *face* – it sends signs to the public as well. A residential house that gives the spectator the impression of a castle sends signs of wealth and wellbeing, whereas a house that looks like a prison sends signals of the inhabitants' poverty. Open doors are a clear sign that entering is welcome; while a closed door separates the inside immediately from the outside.

As long as a house is inhabited by one social unit a choice for a certain representation is much easier than in a collective house, where more units live under one roof. The aspect of openness or closeness to the public gets more difficult in the latter type as well. The aspect of privacy is often discussed when it comes to urban housing. Dwelling is an activity that takes place in both, the private and the public. The emergence of collective housing forced the question of how to deal with the border between both public and private; and the signs of borders and boundaries between both had to be legible, otherwise they would not function.

Two main aspects run as a red thread through the PhD: *First* the façade as the part of the building where the representation of a group of social units will happen and where signs can be sent to a public; *Second* the aspect of the façade as a place where the negotiation between public and private can happen and the control and protection of the private area can be realized. I call these two themes the *face* and the *filter*. The main question of the research is**:** How is the façade as an intermediary element between inside and outside related to 20th century dwellings in the Netherlands? The following subordinate questions clarify the main question: How was the façade as a *face*, a representative element, designed and how was it designed as a social *filter* element throughout the last century? Assuming that the façade as a representing and filtering part of the building sends signs to the public, what are the signs and how are they built up?

In this paper the concept of signs and how they work in architecture will be explained. A method to research the façade and its signs for the representation and the filter will be elaborated and some first examples will be described.

2. Signs in (residential) architecture

To understand generally that material form is able to send signs can be illustrated by the example of the dress code. Of course it is not the dress that makes the code, but the society. *"That clothing communicates and is used to project quite explicit messages about identity, status, group member ship, and so on is clear from the recent spate of books and articles on how to dress for success, including the development of computer-programmed "wardrobe engineering" for success. (..)Clothing generally has been used to communicate identity and has clear meaning."*[1]

Concerning the house the first codes were not about status but about privacy. For the architect Norberg-Schulz *the door* was the first and most important *'sign'* of a house as here the information was given whether the inhabitants were visible or not. This door was a sign that everyone understood through his own experience. The door functioned for both: as a notable element of the outside appearance, the *face* of the hut and as an element of the social *filter* between outside and inside.[2] Architecture does send signs and the façade is one of the first parts of the building for this nonverbal communication. This makes the façade an important element of the building, especially in the city where the façade is a wall of the urban room. The goal of this paragraph will be to explain how architecture emits signs and how we can understand the meaning of signs.

There are different approaches to study the meaning of signs. One of them is the *semiotic approach* which firstly was developed by linguists and later interpreted by architects. Another approach is the *symbolic approach,* which involves the interpretation of symbols. For an analysis of signs in architecture this approach is too superficial as not every sign is a symbol. Symbols often are not shared as they arise from different cultures. This makes it difficult to interpret a symbol and makes the approach less interesting. The third approach is an *anthropological approach* based on nonverbal

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[1] Rapoport A. (1982; 1990) The meaning of the built environment – a nonverbal communication approach p. 70
[2] Norberg-Schulz (1965) Logik der Baukunst p.111

communication and the behavior of people.[3] (An example of an anthropological approach is that of proxemics by E.T. Hall, a.o.). Common to the three approaches is that there is a sender and a receiver, a channel, a message form, a cultural code, a topic and a context or scenery.

As I am interested in the design approach of the façade within one century of collective urban housing, the façade in its material and spatial form is the object of the research. Therefore I will follow the *semiotic approach*, often used and discussed by architects, but I am taking into account that this approach has a high level of abstraction and therefore needs to be reduced to its essence while working with it. It will be complemented by the more practical anthropological approach about how things work in the environment.

To understand the phenomenon of signs we have to take a more profound look into the notion of the *'sign'* in architecture. In the last half of the 20th century the meaning of signs in architecture was discussed frequently (and in a broader sense, the *meaning of architecture*). "Architecture is like a language" (A. Forty 2000 p. 64) seemed to be the focus of a new debate, but actually the discussion of signs in architecture was much older. The American philosopher C.S. Peirce (1839-1940) and the Swiss linguist Ferdinand de Saussure (1857-1913) both influenced the later architectural discussion with their studies. After the publication of English translation of Saussure's *'Course in general linguistics'* in 1959, the debate about signs in architecture received a broader platform.[4] In 1974 the first congress "Semiotic Studies in Milan" was held, and Peirce's studies were introduced again with his theory of *index-icon and symbol* (see explanation further in this text). Charles Jencks summarized the concept of signs as follows: *"Everything that can be seen or thought about takes a meaning, or position within a signifying system, even the recurrent attempts to escape from this omnipresent signification."*[5]

Amos Rapoport, who studies the meaning of the built environment through a more anthropological approach puts it this way: *…"meanings are in people, not in objects or things (..). However things do elicit meanings; the question is how they elicit or activate these meanings and guide them and, thus, which things or objects "work" best. Put it differently, the question is how (and of course, whether) meaning can be encoded in things in such a way that they can be decoded by the intended users. I assume, for the moment, that physical elements of the environment do encode information that people decode."* [6] Signs are encoded information, and in architecture this is done with material, form and space. The problem Rapoport considers is a discrepancy between the designer and the user, which can be described as the architect's *perception* of a building and the users' *association.* Rapoport's comment on Jencks and Baird was that their discussion was unilateral, looking at the architect's and not the users' meaning of the built environment.[7] He even states that " the whole Modern movement can be seen as an attack on users' meaning – the attack on ornaments, on decoration…"[8] We will see later in this text that indeed the Modernist residential building and the encoded signs (from the architect's perception) was not understood by the users. Understanding the house as a *home* with personal, emotional and symbolic associations makes clear how possible it is to influence the interpretations of signs. Much of the meaning of a home has to do with personalization and perceived control; users intervene within a given situation, for example by controlling the degree of privacy.[9] Thus signs are part of our communication. The important question is *which things or*

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[3] Rapoport A. (1982; 1990) p. 38
[4] Saussure (1916) 'Course in general linguistic', published posthumously in 1916 by former students Charles Bally and Albert Sechehaye on the basis of notes taken from Saussure's lectures in Geneva
[5] Broadbent G. (1980); Signs, Symbols, and Architecture; Introduction by Charles Jencks p.7
[6] Rapoport A. (1982; 1990) p. 19.
[7] Rapoport A. (1982; 1990) p. 20; In 1967 Rapoport wrote an article for the Architectural Association Journal in which he added this critique to the semiotic approach of meaning. Jencks and Baird stressed the architect's meaning, while Rapoport wants to look at the users' meaning of the built environment.
[8] Rapoport A. (1982; 1990) p. 22
[9] Rapoport A. (1982; 1990) p. 22

objects "work" best, as Rapoport formulated this, or: "*which physical elements in the environment will tend to communicate that character or image defined as " institutional" by particular user groups*". [10]

As the majority of architectural objects are not built to be a sign in first place but to fulfill a certain function, we first recognize an architectural object functionally. Our interaction with this object then forms the important step of combining its features with associations of its function. Eco describes this phenomenon using the example of stairs. Once we have experienced the function of climbing up and down the stairs through the stairs' features, we will associate other similar objects with a stair as well. The object or building then gets two functions, the first one is the aspect of the core function; in case of the stairs this is the connection between two height levels, and the second is the aspect of the association we gain from our experience, the climbing action. Every object that looks like a stair, even very deformed, we will associate with a stair. Peirce distinguished an object between its denotation (the usage) and its connotation (the association). In the case of the stair both are close to each other as the stair is a pragmatic element. The detached dwelling has the denotation of a house for one family whereas the connotation can be welfare, depending on the context of this house. An addition of 100 equal dwelling units, added and stacked onto each other, has the denotation of a uniform residential building and a connotation of humility, ("I am an ant") or even poverty, depending on materialization, decoration or the lack of it, and so on.

To analyse architecture and its signs, the question arises how and where to extract the signs and how to understand the meaning of signs in architecture. As Norberg-Schulz argues, signs in architecture are found in the *task* and the *form* of the building[11]. *Building task* is meant as *the hosting and representation of actions* that fit to a certain society and are known by it. A building task very often will be the function, for example a theatre, but a task can be the representation of a society, of a culture or a special group as well. *Building form* is meant as *the whole architectural object* with its elements, spaces, structures, relations, layers and hierarchies. These two aspects of the *task* and the *form* are the most important if we analyse the meaning of signs of a building, a façade or an object.

Signs can be classified into different groups. I will explain this shortly with the comment that the semiotic classifications are complex and I assume that for the analysis not all layers of the classification will be helpful. The most known are the *pragmatic sign*, the *syntactic sign* and the *semantic sign*. *Pragmatic signs* show the *"relation of signs to the behavioural responses of people (..)"*[12]; pragmatic signs show the very practical considerations which lead to the design. Often this resulted in forms that fit as closely as possible to their function, like a roof, a door or the stairs. But the transmission of the meaning depends on the context, the speaker and the listener, the architect, and the user and their references (we can imagine that an object like a knife or fork, which is designed by pragmatic considerations, won't be understood in a cultural context where people only eat with their hands).
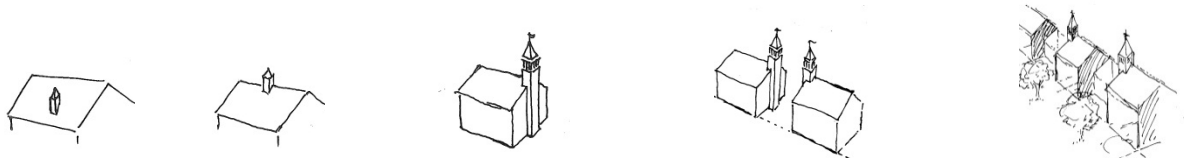
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[10] Rapoport A. (1982; 1990) p. 32
[11] Norberg-Schulz 1965
[12] Rapoport A. (1982; 1990) p. 38

Syntactic signs derive their meaning by the position among all elements of the building. A chimney placed in the middle of the roof will be understood as a chimney, but when it is placed in the façade as a kind of tower it could be associated with a church. (Peirce; Eco 1971; Fischer 1991).

Pictures: Monastery Certosa di Pavia; The position of the chimney of the small refuges of the monks received an important role. It was not, as sketched on the left and the middle, put in the plane of the roof, but to one of the side facades were it connotes the tower of a little chapel. The tower in itself is a semantic sign, connoted with chapel, church or castle. To use the chimney syntactically transforms this element to a tower. To align the little refuges in a row and not in groups of two (opposite to each other) symbolises that this is an order of silence.
Source: Fischer (1991) p. 33/34

The *semantic sign* shows directly how things carry meaning, to what they refer. For example the loadbearing pillars of the Johnson Wax Factory, designed by F.L.Wright, refer to water lilies .

Picture: The loadbearing pillars of the Johnson Wax Factory,
designed by F.L.Wright
Source:

For the *semantic sign* Peirce introduced three sub-groups: *the index*, *the icon* and *the symbol*. The core function is the *index*. The *index* needs a reason for its existence as the stairs need a lower and higher area to be able to exist. The *icon* has similarities to another object like the pillars, mentioned above.[13] The *symbol* has an arbitrary relation to something else. To give an example: during the Modern movement, the functional white dwelling blocks with long access galleries and almost endless repetition of the same window were, in the perception of the Modernists, compared with a steamboat. The steamboat became a symbol for the modern functional dwelling slab, through its industrial production and its machine aesthetics. However the users had quite negative associations with these buildings and did not share their architects' fascination.

In the second half of the 20th century Peirce was followed by other philosophers and linguists. They shared in common a distinction between a *first function,* which mostly is the use of a building - the *denotation,* and a *second function*, which is the association or *connotation*.[14] The three meanings of signs (index, icon and symbol) in architecture were often seen a bit more practically.[15] It is discussable whether these categories are that important. The case study will show whether it is

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[13] Zoest A. van (1978) Semiotiek

[14] Barthes 1957; Norberg-Schulz 1965; Eco 1971; Jencks 1969; Fischer 1991; Saussure recognized two main streams within the signs which he called *'la langue'* and *'parole'*. La langue is the structure of the language and does not change rapidly. Parole is the language of the individual, which is more sensitive to change. He was much more focussed on the structural research of language and this differentiates Saussure's theory from Peirce's. Saussure influenced the Structuralist thoughts of the 20st century with his theory.

[15] Eco U. (2002) Einführung in die Semiotik; p. 158; The *index* is the purely building constructive function, the *icon* is the sign that shows similarities with historical types which are still recognizable, and the *symbol* is the sign which is not bound to a historical type, but to anything we can recognize.

possible to see these categories in the architectural form and its elements or not. What is important is whether people can understand the signs, and that they are always bound to the task or the form.

An interesting complement to these classifications is the very pragmatic distinction between *fixed* features; *semi-fixed* and *nonfixed* features (first proposed by Hall in 1966 and later by Rapoport). Window screens are semi-fixed features that change the openness of the window quickly, sending a sign to the environment. The distinction proposed between 'duck' and 'decorated shed' architecture[16] can be interpreted in terms of fixed and semi-fixed elements: A 'duck' relies on fixed elements to communicate its meaning; a 'decorated shed' relies on semi-fixed and changeable elements."[17] For historical research, we have to take into account that non-fixed features like furniture cannot be traced anymore. Rapoport argues that: "one can look at environmental cues and analyse their meaning without getting into the whole issue of symbols, which can, and does, become fairly abstract."[18] Physical elements can encode meaning (shape, size, scale, height, colour, materials, textures, details, decorations, spaces, enclosing elements, paving, barriers and links, etc.) and contradictions can help to understand the meaning. Signs that are *invented* (mostly by ideas of a group or by the architect) will not be understood at first but have to be used for a long time or, as Rapoport summarizes it: *"At that level, it is the embeddedness of the elements (and their meaning) in the context and the situation that are important."* [19]Context has to be understood in the sense Norberg-Schulz uses it: the *building task* that is dependent on society, cultural background, location and political system.

Changes in society often generated new types of buildings and new signs; or signs that were known did not fit any more and caused misinterpretation to arise. The industrial buildings that emerged in the 19th century were the consequence of the industrial revolution. In his dissertation Winkelmann shows that the new industrial architecture firstly borrowed associations of different architectural types like palaces or castles before developing its own architectural language.[20] The same phenomenon can be seen within the collective residential house that emerged in the 19th century and after the housing act of 1901, mainly for the working class. Social housing in huge complexes evoked associations with storage houses as well as castles. The idea of the castle-like houses was to build up associations with a building type of a wealthy social class to create solidarity and a feeling of elevated status among the residents. The association with steamboats was created by the Functionalists, who were fascinated with the machine and the idea that people can live in a machine.

Steamboat Robert Fulton 1909;
The association with steamboats was caused by the functionalists, their fascination of the machine and the idea that people can live in a machine.
Source: left http://commons.wikimedia.org/wiki/File:Robert_Fulton_(steamboat_1909).png
Right: Bergpolderflat in Rotterdam, architect van Tijen; Source: www.wonen.rotterdam.nl

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[16] Venturi et al., 1972
[17] Rapoport A. (1982; 1990) p. 94
[18] Rapoport A. (1982; 1990) p.47
[19] Rapoport A. (1982; 1990) p. 39

[20] Arne Winkelmann (2006); Kapitel: I.3.2 Das „architektonische Zeichen" als Kommunikationsmittel; http://edoc.hu-berlin.de/dissertationen/winkelmann-arne-2006-12-20 ; *"In der Architekturgeschichte läßt sich beobachten, daß beim Auftreten oder Entstehen neuer Bauaufgaben, wie den Industriebauten des frühen 19. Jahrhunderts, zunächst alte Formelemente und Typologien auf diese übertragen und ausprobiert werden, bis sich eine eigene Formensprache herausbildet und sich eigene Typen entwickeln."*

3.   Analysing the signs

In this paragraph, a method to analyse the façade with its signs will be discussed. From the previous paragraph, we can conclude that signs are constructed by the building task (the context in a very broad sense) and form (starting with the first impression, up to the element and detail). The type of the collective residential house in the 19th and early 20th centuries was rather new. To understand the *task* means understanding the demand of a society at a particular moment. This can be a purely pragmatic demand, but it can be a political demand as well. To understand the form means understanding the complete architectural object, its first impression and all specific elements and spaces that build up this first impression. This already means that *observation* is an important first step to undertake in the analysis. As Rapoport states:

"Nonverbal behaviour have been studied primarily by observation and recording and subsequent analysis and interpretation. Basically, the use of nonverbal models in studying environmental meaning involves looking directly at various environments and settings and observing the cues present in them, identifying how they are interpreted by users – that is, the particular meanings these cues have for human behaviour, affect, and so on. This can be done easily and directly even without a major consideration of theoretical aspects of nonverbal communication. "[21]

The first impression has to be followed by extracting the elements and spaces that build up the impression. What are the signs? The elements and spaces can be signs concerning representation or presentation (like the presentation of equivalent dwellings). They can be signs of boundaries and borders and sequences between public and private. The aim is to recognize the signs that were sent out by the new type of residential building concerning the *face* and the *filter* of the house and to understand how this is performed architecturally.

This calls for investigation of built precedents throughout the whole century, the attitude of the society, the position of the architects and the users in those times. During the development of the collective residential building, new types had to be invented to solve the access to all dwellings and to represent the collective or the individual dwelling. The significant elements that built up the representation and the filter of the house became more complex, as did the communication and understanding of the buildings.

At the end of the analysis it should be possible to classify the new types of the collective building. Noud de Vreeze made a start to this, as he tried to classify the collective residential building in terms of character between 1900 and 1940, and he arrived at 3 groups:[22] 1. The *traditional grant family house*, this is the garden city ideology, 2. *residential housing as an art product* - these projects can be distinguished by their monumentality, originality, expression of power, exuberance, a richness which was known in architectural history for centuries, but not in the context of residential housing projects. 3. *The dwelling as a product of the ordinary,* the simple and functional house. Gert Kähler introduced another group, the group of functionalistic *housing that looked like a machine*, a symbolic sign. The steamboat was a symbol for the technical and functional development in housing by which architects were fascinated. The four categories mentioned are a starting point that should be elaborated in a more profound way. The question is what makes these houses *traditional grant family houses or the dwelling as a product of the ordinary?* What are the signs that communicate this? Are there more categories that were not understood or caused confusion of the users, like the steamboat?

In the research about the representation of the collective residential building, the analogy of the human face as a starting point to trace the noteworthy elements that build up the presentation (the face) or the representation (the mask) will be used. Parts of the face will be referred to, knowing that the face is a metaphor (the façade *is not* a face but is *like* a face because it sends signs). Ten cases will

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[21] Rapoport A. (1982; 1990) p. 87
[22] Noud de Vreeze (1993) p.68-75):

be studied. A face has a main form. The striking elements of the face are the most obvious ones (the eyes, the nose, the mouth, the forehead, the chin, and the cheeks). The main composition of the face is symmetrical, with the nose and the mouth in the centre. Eyes and ears are then symmetrical with respect to this centre. Horizontally, the face can be divided in three parts, the mouth, the eyes and the forehead. In a façade of a building, the first and most important element was mentioned by Norberg-Schulz: the entrance, metaphorically the mouth of a face. It appears that from the very beginning of the settlement, the door, the roof and the windows were the important parts of the house. In this paper I will not elaborate in detail on the analogy of the face in relation to the façade. Architects have discussed this analogy frequently.

From the public space to the protected place of the home, there are various and culturally dependent transitions, boundaries and borders. Transition is meant as an alteration (of a physical system from one state, or condition, to another) of material, space or measure (height, breadth, level) or even atmospheres. Transitions are oriented towards the mechanism man has developed to create and regulate privacy in a conscious and unconscious way. Transitions can be static or dynamic. Richard Sennett explains the difference between border and boundary: "A border is a zone of interaction where things meet and intersect. A boundary is much more like a national frontier, a place where something ends (…)."[23] Researchers, philosophers and architects focussing on the transition and hierarchies between outside and inside, between one condition and another, describe the concept of public versus private.[24] They examine *architectural means* (the FORM as Norberg-Schulz explained), zones and spaces to order these different conditions. Herman Hertzberger describes the transition as follows: *"A gradual succession of indications in architectonical means allows us to enter and leave in the same way. Thereby, the whole complex of experiences participates as is evoked by architecture: change of height, breadth, fall of the light, illumination, material, floor level".*[25]

When and how do you know you are within a boundary, what are the signs that make this point of transition understood? This was the question that was posed by the sociologist Bourdieu in researching the Berber House (1973). In a very empirical way, he described with incomparable care the interior of the house to find out how the division of the house into two parts (women and men) is achieved, where the borders are and which part is used by the women and which by the men.[26] To be able to answer his question, Bourdieu worked carefully with observation, photography, notes and drawings. But the essence is to understand the signs that are used. He realized that the movement from outside to inside and the attributes passing while moving are very important. He confirms the use of photography as a valid tool within this research.

The different approaches show how the transition from one condition (outside) and the other (inside) can be researched. In ten case studies, the different steps of transition will be noted and photographed to answer the question: *When and how do you know you are inside a boundary? What are the architectural signs that mark this transition?*

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[23] Sennett R. (2004)
[24] Philosophers like Walter Benjamin 'Passagenwerk'; Georg Simmel 'Die Brücke'; Peter Sloterdijk in Archplus 169/170 Mai 2004 and 'Sphären' (1998); Environmental studies of I. Altman (1975); Rapoport (1982,1990); Anthropological studies of Hall Edward T. (1966/ 1982) The Hidden Dimension; Setha M. Low (2003); sociologist Bourdieu in researching about the Berber House (1973) Architectural studies like Christopher Alexander and Serge Chermayeff 1960; Alexander Chr. (1977), A Pattern Language; Unwin S. (2009) 3rd. edition; Analysing Architecture; Hertzberger H. 1996;
[25] Hertzberger H. (1996) p.86
[26] Setha M.Low (2003) p. 131-141

Analysing built precedents, cases, is an often-used research method within architecture. The cases represent a broad spectrum of residential buildings of the last century, especially residential buildings that were considered to be innovative in terms of access typology or imagery they evoke (index, icon or symbol). In order to understand the signs and how they are constructed, we first have to look at the task that was formulated for the project and the ambitions of the society, the architect and the user. The first impression while approaching the building will show an image of the whole complex. This already leads to the first signs the residential complex presents to the public. By approaching the building more closely the signs for transitions from public to private become interesting. Within the research of the façade as a filter and its transitions, the question *"when and how do you know you are inside a boundary"* is the essence of this part of the research.

First results of the analysis – a short description of some cases

The aim of this part is to show first results of the investigation of how the façade communicates in terms of representation and in terms of the filter. It will be a summary and not all details will be described or shown. Four projects are chosen to discuss, built between 1890-1935. First a project built one decennia before the housing act of 1901 will be discussed to explain the poor situation of urban residential buildings in the Netherlands at those times. Then a project built one decade after the housing act will follow. The third project shows a totally different design approach. One project of the Modernists, made some years before WWII will follow. For final conclusions this state of investigation is not far enough, but for a discussion of the method and a first conclusion about the changes it offers preliminary evidence. The goal of the research is to continue this study up to the end of the 20th century to acquire more insight in the design of façades of residential buildings in the environment of the city.

Residential housing 1890 - 'Eerste Jan Steenstraat' in Amsterdam, architect: no architect
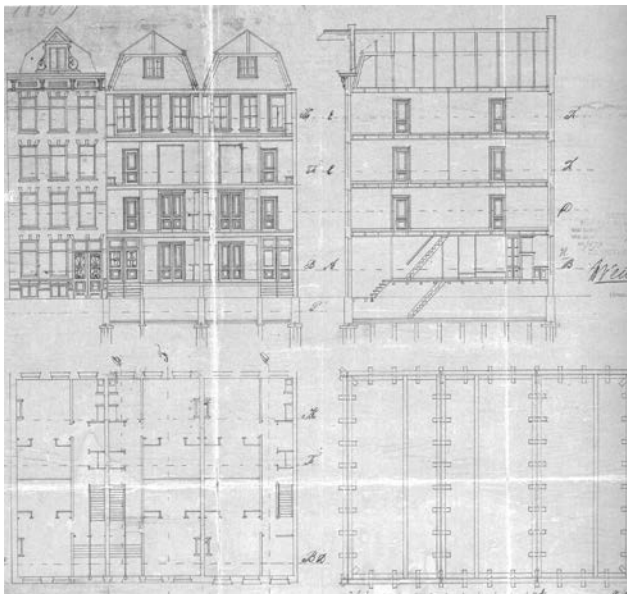
1890-1900: Eerste Jan Steenstraat 104-108
Source: Risselada M. e.a. (2002) Atlas van het Hollandse bouwblok, p.52

A storage house in Amsterdam
Source: http://bickerseiland.blogspot.nl/2011/07/westelijke-eilanden-amsterdam.html

TASK/Background: These residential buildings are in a way the result of the new mortgage programmes offered by the banks after 1860, which allowed small entrepreneurs to invest in housing. The government hoped this would solve the housing shortage. A site was developed by the city and sold per plot (or per plots) to the entrepreneurs. The buildings became famous, known by the name *'speculation buildings'*. The houses were built for the working class, finished as quickly as possible in order to make as much as possible profit. The material quality and details were disastrous, even leading to collapse in some cases. *FORM/ 1st impression:* The first impression of these houses is of a monotonous wall with equal openings, like the old storage houses of Amsterdam. Another impression is familiarity with the canal house that always stood in a row (but totally individual with some space in between against fire flashovers) with a gable roof, a cornice and often a dormer in the middle. The last two elements often were decorated richly, sometimes even with a family crest. Both the storage house and the canal house function as icons, they are recognizable through references. The denotation is the house in a row with equal floors and rooms, but the connotation is uniformity and some familiarity with the Dutch family house, which helps, immediately, to understand these buildings as residential ones. *FORM/ face:* The two minimal entrances in a set-back, the uniformity of the windows, the gable roof, cornice and the dormer with a very minimum of added decoration are the signs in the façade, which makes the façade a face, presenting a very sober residential building, showing uniformity, simplicity, or even poverty. It exactly shows what it is; it even shows that it is not clear how many families would use one entrance: this is not readable in the façade. With the similarity to the form of the canal houses, it is clear that these buildings are residential ones. *FORM/ filter:* Concerning the filter, the elements are minimal. As the entrance has a set-back with some stairs, a small portal is created which gives a visitor a place to shelter and the dweller a place to receive a guest or stranger outside. There is a threshold at the alignment of the house and the entrance; this tells the observer that one is entering a boundary to the private sphere. One entrance door is for the ground floor; the other is for the upper floors. It is not sure whether one or two families shared a floor, but we can assume that there were two families per floor because of demands in those times. The difference in height between street and ground floor offers a minimum privacy for the first room. The house does not have shutters or other semi-fixed elements to control privacy. The 'speculation building', as it was called, indeed was a kind of storage house for families of low income.

Residential housing 1911-15 - 'Indische Buurt in Amsterdam' , architect: H.P. Berlage


Sources: Drawings: the street facade and one standard floor plan ; Source: Polano p. 76 en p.90,
photos: Left: Kunsthistorisch Jaarboek part 25 1974   Colorphoto's : B.J..

TASK/Background: After the introduction of the Housing Act, it took some time before entrepreneurs and investors started to build, as they were afraid of the stricter rules. One decade later the number of housing associations had increased and new housing projects were developed. In that time we have to position the residential buildings of the architect H.P. Berlage in the so-called 'Indian neighbourhood' of Amsterdam. Firstly, Berlage made a master plan for three blocks instead of one big block. He used the relatively new type of the closed collective access staircase. The dwellings are grouped in the blocks with a maximum of three staircases and 3x6 dwellings per building. *FORM/ 1st impression:* The first impression shows sober houses with three protruding accents. The roof covers all the three accents, which clearly gives the impression of one house instead of three houses. This gets even stronger as the house has a clear termination to both sides, namely the end walls of the next house of the block (like ears of a face). The accentuated parts suggest bay windows. The denotation is a sober uniform house, the connotation is uniformity, but some welfare as well (because of the bay windows) *FORM/ face:* The bay windows, the roof and the windows are the most representational elements in the façade. The bay windows have something monumental which makes them rich. They are the entrances to the collective staircases. Looking at the floor plan, the protruding was necessary to get more space at the pedestal of the stairs, but Berlage also used the bay window to accentuate the staircase. As this bay window starts at the first floor, a protected entrance with a portal-like gesture is created. The bay window was introduced in the Renaissance within more expensive houses. Here it is used for a new type of access, the staircase, which did not have a long tradition within Dutch residential building. The three bay windows work as an icon, they show something special like a bay window does. The windows of the dwellings are grouped in two pairs which lets us assume that these are the windows of one dwelling, and this information lets us

get an idea of how many units are gathered behind the screen. The windows of each dwelling are, except the small kitchen window, all the same, which strikes the uniformity. The roof, as a saddle roof covering all the three parts of the house, clearly shows that this house is *one* house. The position of the roof is very important in clarifying this message. There are two associations offered by this façade: monumentality and uniformity. *FORM/ filter:* The entrance is marked by a salience of the brick (ressaults). At the upper part of the entrance-door they incline towards each other. This is a small suggestion of an arch is a symbol of a portal. The small window above the entrance makes this impression even stronger, as here two consoles and an arch are detailed. The dweller did not have sole control over the entrance; he had to share it, but he could get a feeling of an entrance of importance, the feeling that this house is somehow wealthy.

Residential housing 1922 – 'Amstellaan in Amsterdam', architect: Van de Klerk
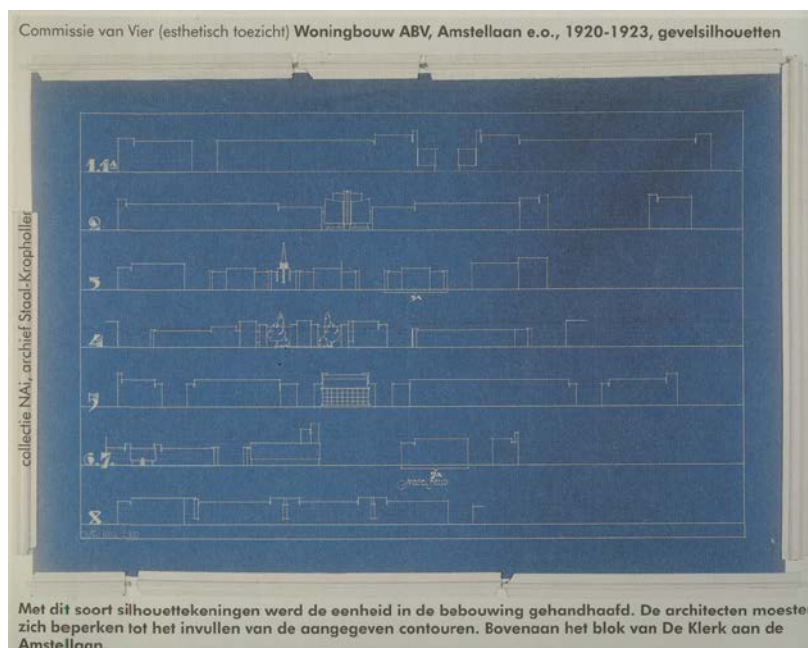
The silhouette drawing of the commission (woningbouwvereniging ABV 1922) ,
the upper drawing is the Amstellaan
Source: NAI Rotterdam (2004) GeWoon Architectuur, Wonen in Nederland 1850-2004 p.70
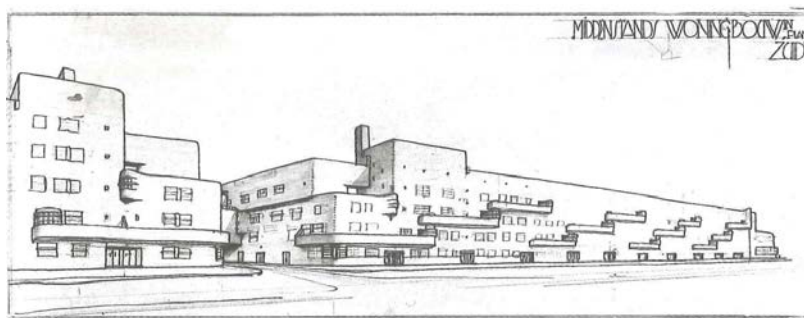
Plan Amstellaan design: M. de Klerk
Source: Bock M. Johannisse S. Stissi V. (1997) Michel de Klerk p.288

TASK/Background: The Housing-Act of 1901 caused a control on all residential buildings in cities of more than ten thousand inhabitants. In 1921 the Housing-Act was changed: now cities had to determine the streetscape with main lines and accents. Already in 1911 the architect van den Mey, one of the founders of the 'Amsterdamse School', a group of architects working in Amsterdam (in which Van de Klerk participated) had been promoted as artistic advisor of the 'Buildings' of department the office for public works in Amsterdam. In 1922 the housing corporation ABV assembled a commission of four architects (A. Hulshoff, J.F. Staal, J. Gratama, J. de Meijer) who had to draw the silhouettes for the new expansion areas of South Amsterdam. The silhouette drawing showed accents at corners of the street and portals in the middle of building blocks. Commission member Staal called this the *masquerade architecture* because not even one floor plan had been designed yet. The designs of the 'Amstellaan' houses are based on such a streetscape drawing, which determined the first impression. *FORM/ 1st impression:* This is the impression of a sculpture, and flowing mass that is made by one material. There are three striking elements that form the first impression of the main façade (the façade of the main street): 1. The total mass, divided into long slabs, with higher corner parts and chimneys; 2. The long balconies that meander along the whole façade and give it a strong rhythm; and, 3. The entrance doors (that seem to be engraved) at street level. This building suggests a sculpture rather than a residential building; it is not clear how many units are hosted within this sculpture and it is not clear whether the balconies are access routing or private outside space for the dweller. *FORM/face:* The complex is extremely focussed on representation of a sculpture. Even small windows, designed as bay windows, emphasise the flowing model of the sculpture. This impression is built up mainly by the form itself, which is achieved by the material of the brick. This material forms a homogeneous mass and accents the higher parts at the corner. The main windows, very uniform indeed, are a bit bigger and even seem to be much bigger as they are combined to make broad elements, as opposed to those of former residential housing projects, and they have a very detailed subdivision. This allows the association with the former well-known Dutch canal house with its broad wooden frame to the street, from sidewall to sidewall, filled in with a comparable subdivision of leaded glass. The windows are icons of the Dutch Golden Age, which gives this sculpture an interesting turn to the reference of the residential merchant houses. *FORM/ filter:* Approaching the building, the transition from public to private seems to be abrupt; by entering the sculpture you are inside a new world. Coming closer, the entrances are clearly readable, they are lying in a set-back and offer protection and shelter. This set-back has a step at the alignment of the house with a change in material, from pavement to concrete floor; this is the first sign that you are entering a boundary and it is the same sign as the old merchant houses had from street to the veranda-like pavement, which was part of the house (though not in a juridical sense).

Residential housing 1928-33 – 'De Bergpolder in Rotterdam', architect: Van Tijen
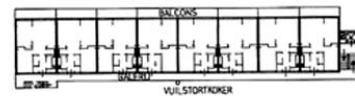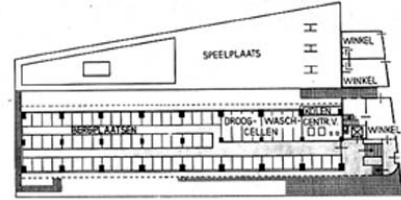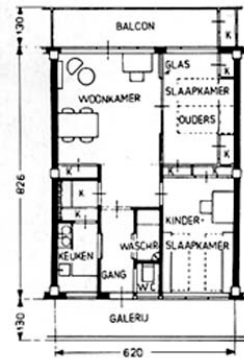
The Bergpolderflat after the delivery. Source Photo and drawings: Digitaal Museum van de volkshuisvesting

Left and middle: The annex with the main entrance; right: the access gallery; Photos: B.J.

Left: The west façade with balconies; Right: Detail of the east façade with the access gallery; Photos: B.J.

TASK/Background: In 1928 the architect van Tijen (1894-1974) initiated a society for people's homes together with Auguste Plate (1881-1953) "N.V. Volkswoningbouw Rotterdam". In the same year, together with the architects Brinkman (1902-1949) and van der Vlugt (1894-1936), he started the design of these residential buildings. Van Tijen thus was client and architect and had a profound influence on this plan. The task was to design homes for working class families. As van Tijen started to design this building with the idea to use a steel construction for the first time and to use the access gallery that had only been used once before, this project acquired an experimental character. He wanted it to be an example of a modern residential building. The building stands in a new developed neighbourhood, the 'Bergpolder', but it does not fit in with the other residential buildings of the area, which are designed in a very traditional way in brick, a maximum height of 4 storeys and oblique roofs. After completion of the building in 1933, it was one of the most discussed buildings of the time; journalists wrote about it, calling it "a storage" for men or even a prison. The criticism made the building famous. The building is designed in order to give the small dwellings as much sun as possible (one of the central design criteria of functionalism); there are some collective spaces in the cellar (a room for washing facilities) and on the roof (a terrace); and there is a small shop next to the entrance.

FORM/ 1st impression: The apartment building *Bergpolder* in Rotterdam was literally put on a green lawn surrounded by a hedge. Approaching the building on the east side (the access gallery side) the first impression is that of a prison-like and totally anonymous building. Approaching it from the western side you see an addition of balconies and, very clearly, the addition of living spaces. Here the building seems to be a scaffold for identical boxes that can be identified as dwellings. There is no private side; all four sides are visible from public space. *FORM/face:* The whole building does not *represent* a residential building in the way people were used to imagine this; it purely *presents* an aggregation of equal small dwellings and a rather technical construction. This impression of something technical and functional is made by the visibility of all nine floors, the visibility of all access doors and the plain addition of the balconies. The most striking element is the glazed staircase which gives the building a 'backbone'. The horizontal form of the shop and entrance, a glazed building as well, strengthens this backbone. *FORM/filter:* A glazed tower suggests some vertical access system. The entrance is an outside portal, a small space at the north side, which you see only when approaching the building from the north. At the east side, access galleries of only 120 cm lead to the entrance doors of the apartments, in a homogeneous rhythm. At the west side, the balconies are next to each other. A translucent glazed screen separates them from each other on each side. It is interesting that the sun screens are used even when the sun is not shining and there is no need to use them (todays impression). It seems that the screens do not only offer protection from the sun, but help to create a more private space.

4. Conclusion - discussion

Realizing that more than half of the world population lives in cities, a figure which will continue to increase, architects have to take a position. How should one accommodate the inhabitants of the city and how to face and filter these homes toward the public realm of the city? And to make it even more complex, architects have to realize that the city is a dynamic concept as is the public realm. The public realm within the city is in decline; the inhabitant hides in his home behind veils of material. Communication seems to work in a totally different way, for a great part digitally and not physically.

The five cases already show several problems and challenges. Residential houses were and are objects of profit, which in the worst case means bad quality, minimal signs of reference and identification and minimal space for transition filters. The home stands next to the street in a very hard alignment. This was shown clearly in the first case, the speculation building. Residential houses need some elements of identification and even if the budget is very low, sensitive details can *tell their story* to the spectator as could be seen in the project of Berlage in the 'Indian Neighbourhood'. The sculptural project of van de Klerk was an approach to handle the huge demand of new dwellings in the city with signs (especially the form itself) that were not yet associated at all, neither negatively nor positively. Next to it, the façade introduced familiar elements like the windows and the bay windows, which bore a positive connotation. Important for the sign was that this sculpture did not have a stigma and thus could be identified with. This was exactly what the working class did as their comments on these houses were positive. The 'Bergpolderflat', a result of functionalism, caused confusion or even a feeling of decline, under criticism as this building was called a prison, a storage for men and so on. The idea of a machine to live in was a perception of a small group of the avant-garde, but totally not understood by the users. Finally the working-class was not the most present tenant in this house, as it enforced a special way of life with furniture that had to be as light and minimal as possible to fit in the small dwelling. 'Het Breed' was the imagination of anonymity and in that way one could have expected disastrous effects. But the image of the strong columns, the rhythm of them in combination with a totally green park area worked positively as it is, 30 years later, a popular area to live and some of the first inhabitants are still living there.

The research in total, and in this paper, the first conclusions should lead to a discussion about the face of our residential buildings in the city. Signs depend on the context, socially and culturally. They can work in a positive and negative way. The crisis of today will definitively show its reactions on the face and the filter of the urban residential houses as it did 120 years ago.

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