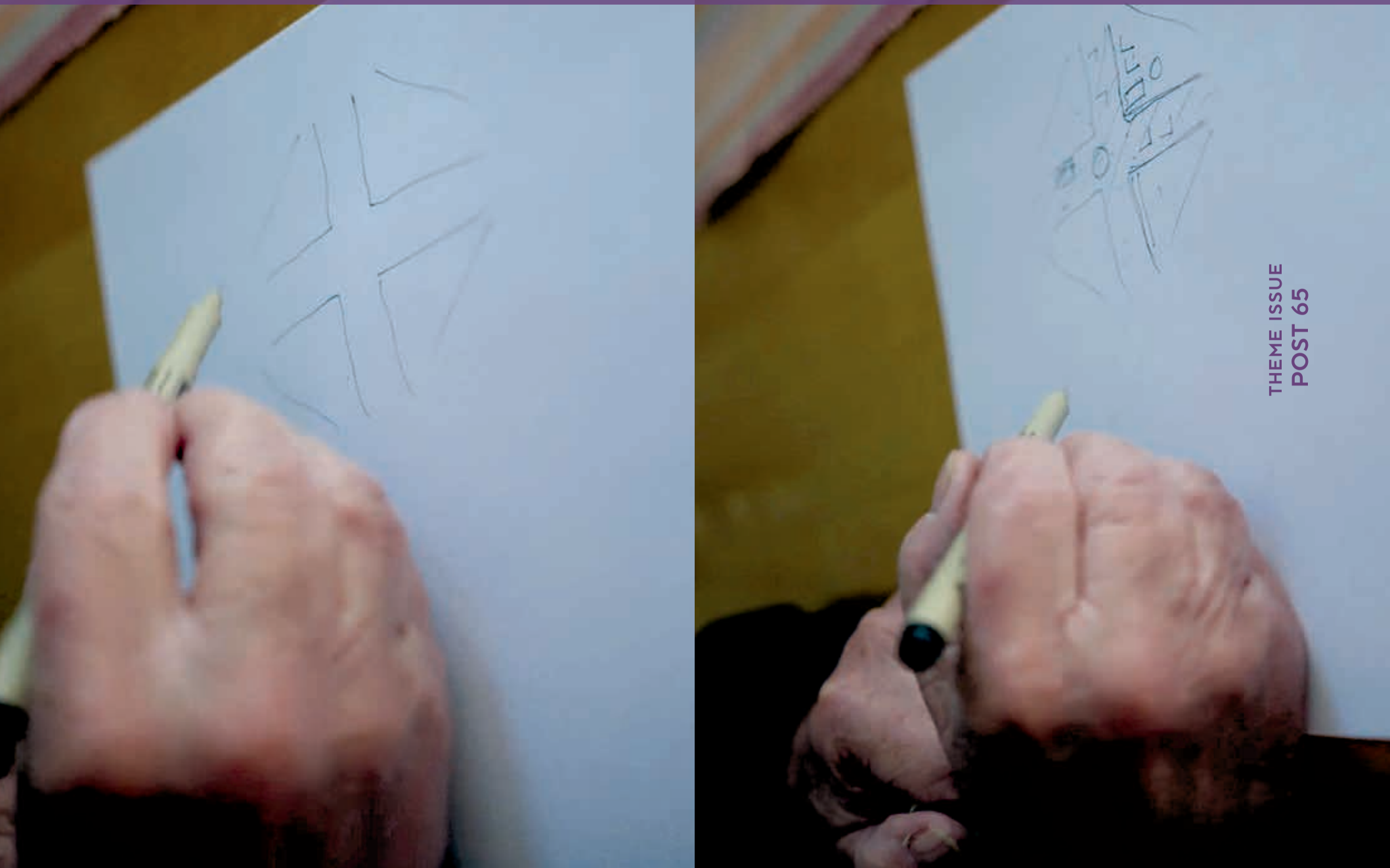
BULLETIN KNOB
KONINKLIJKE NEDERLANDSE OUDHEIDKUNDIGE BOND
2023 4



THEME ISSUE
POST 65

BULLETIN KNOB

VOLUME 122, 2023, ISSUE 4

KONINKLIJKE NEDERLANDSE OUDHEIDKUNDIGE BOND

FOUNDED ON 7 JANUARI 1899

Independent peer-reviewed scientific journal of the KNOB, co-sponsored by Delft University of Technology's Faculty of Architecture and the Built Environment. ISSN 0166-0470

COPY FOR THE BULLETIN KNOB
For guidelines see bulletin.knob.nl
Proposals for copy please submit to:
Bulletin KNOB
info@knob.nl

SUBSCRIPTIONS AND MEMBERSHIPS KNOB
Subscriptions and membership of KNOB private: € 75,00; up to 28 years: € 32,50; institutions and organisations: € 175,00. Membership is for the duration of one calendar year and is tacitly renewed. Membership for life is also possible.

BUREAU KNOB
Drs Judith Fraune
P.O. Box 5043, 2600 GA Delft, The Netherlands,
T 015 278 15 35
info@knob.nl, www.knob.nl

DESIGN Suzan Beijer, Amersfoort

CONTENT

FOREWORD
TO THE THEME ISSUE 'POST 65'

Fifteen years ago *Bulletin KNOB* devoted a thematic issue to 'new heritage' in response to a perceived need for more and, in particular, different research into architectural development and heritage preservation in the twentieth century. The editors felt that contemporary historiography was incomplete owing to a strong focus on architectural innovation and relatively little attention to renovations, traditional works and the cultural processes involved in evaluating new heritage. In short, it was time for a revision of both the historiographical picture and architectural heritage. The primary focus of that thematic issue was prewar architecture, with a brief foray into post-war reconstruction based on the 'top 100 heritage buildings' from the years 1940-1958. Time was not on our side, however; with a second tranche of post-war heritage buildings from the period 1959-1965 on the horizon and the envisaged historiographical revision barely begun, a new heritage offshoot made its appearance: Post 65. The designation encompasses everything built after 1965, with a provisional cut-off year of 1990: a period of unprecedentedly high construction output and of major social developments that found expression in contemporary spatial planning and had a defining effect on the physical living environment. This most recent new heritage is substantial and diverse and, on top of that, much of it is due to be renovated, retrofitted for sustainability, redeveloped or repurposed. Every reason, therefore, to take a good look at the architecture, urban design and land development from this period and in so doing accumulate the knowledge needed for an approach that does justice to the inherent cultural-historical values.

In recent years interest in the Post 65 period has soared – among historians, policy makers, designers, developers, residents and other stakeholders. A lot of knowledge has already been accumulated and made available via studies of architecture, housing, urban renewal, spatial planning, landscape, urban design, building typologies, specific locations and projects, individual designers, and other sub-topics. This has in turn generated insights into the spatial heritage of this period and into how it is dealt with. This growing stream of publications includes *Bulletin KNOB* articles with a Post 65 theme: on the new council chamber in The Hague, Piet Blom's structuralist architectural drawings, a postmodern interior designed by Alessandro Mendini and urban renewal in Amsterdam's Dapperbuurt. Since there were more articles on this period in the pipeline, we decided to bring them together in a thematic issue and to invite a number of writers to contribute. Our aim is to shed light on several different aspects of Post 65

heritage while also focusing on topical issues. We hope that this thematic Post 65 issue will increase the knowledge and appreciation of spatial heritage from the Post 65 period and contribute to the discussion about strategies for making use of this in transformation projects. It endeavours to do this via the kind of historical analyses familiar to readers of the *Bulletin*, complemented by reflections from contemporary heritage and design practice.

The articles in this issue are grouped into three topics. The first of these deals with the wider spatial context, that of urban planning and the landscape. Noor Mens and Hugo van Velzen in their study of the spatial development of Capelle aan den IJssel distinguish several, partly overlapping phases, from large-scale, repeat-pattern housing schemes in the 1960s, through districts that attempted to resist that monotony but were just as large-scale, to imaginative, villagey subdivision patterns and home zones, and ending in the rationalist planning and architecture of the 1980s. This is followed by two shorter reflections on the significance of Post 65 heritage at this level of scale from the perspective of the social and spatial challenges of today. Anita Blom sees a role for users in the necessary transformation of Post 65 housing schemes. Resident participation can in her view result in a more widely supported approach to the renewal of these districts, and to greater grass-roots involvement in the construction and management of future residential areas. Natascha Lensvelt notes that the Dutch landscape is on the cusp of a transition in which parks, neighbourhood green space and recreational areas will be increasingly co-opted into the drive to enhance biodiversity, improve water quality and raise groundwater levels. She believes that research into the integrated thinking and working methods of Post 65 garden and landscape architects could help us in this endeavour.

The second topic encompasses various aspects of the architectural production of this period. Sanne Tillema discusses the work of the architectural couple Thieme and Brita Thieme-Domela Nieuwenhuis. She describes their equality-based collaboration and analyses a number of projects from their oeuvre, much of which has meanwhile been compromised or disappeared altogether. Sanne van Drenth examines the Centraal Wonen co-housing concept and organization, locating it between the early 1970s, with its emancipatory and socio-critical movements, and the rationalist 1980s when the bulk of the CW projects were realized. Sara Duisters surveys the use of fibre-glass-reinforced polyester (FRP) in architecture, sketching the social changes that underlay this phenomenon and discussing several experimental prototypes realized between the 1950s and 1970s.

The third and final topic concerns the perception and treatment of Post 65 architecture and the issue of its evaluation. Bernard Colenbrander's thought-provoking essay turns the spotlight on the life expectancy of recent architecture. Arguing that the functionalist fixation on efficiency has carried through into the treatment of existing buildings, Colenbrander uses three current cases to show what different outcomes this can have. Marylise Parein, Ine Wouters and Stephanie Van de Voorde apply the Brussels method for evaluating architectural heritage to two Post 65 building complexes, with special emphasis on their materiality. They point to the importance of an integrated approach and the acquisition of in-depth knowledge of materiality to arriving at a correct interpretation of heritage values and criteria. Evelien van Es, Lara Voerman and Sarah Gresnigt explore the extent to which existing architectural heritage evaluation criteria are applicable to the post-1965 period. They argue for a different approach, one in which lived experiences are recorded and citizens – alongside experts – play an active part in the process of selection and evaluation.

On behalf of the editors:
Noor Mens, Kees Somer, Kim Zweerink

CHANGING IDEALS

POST 65 DISTRICTS IN CAPELLE AAN DEN IJSSEL

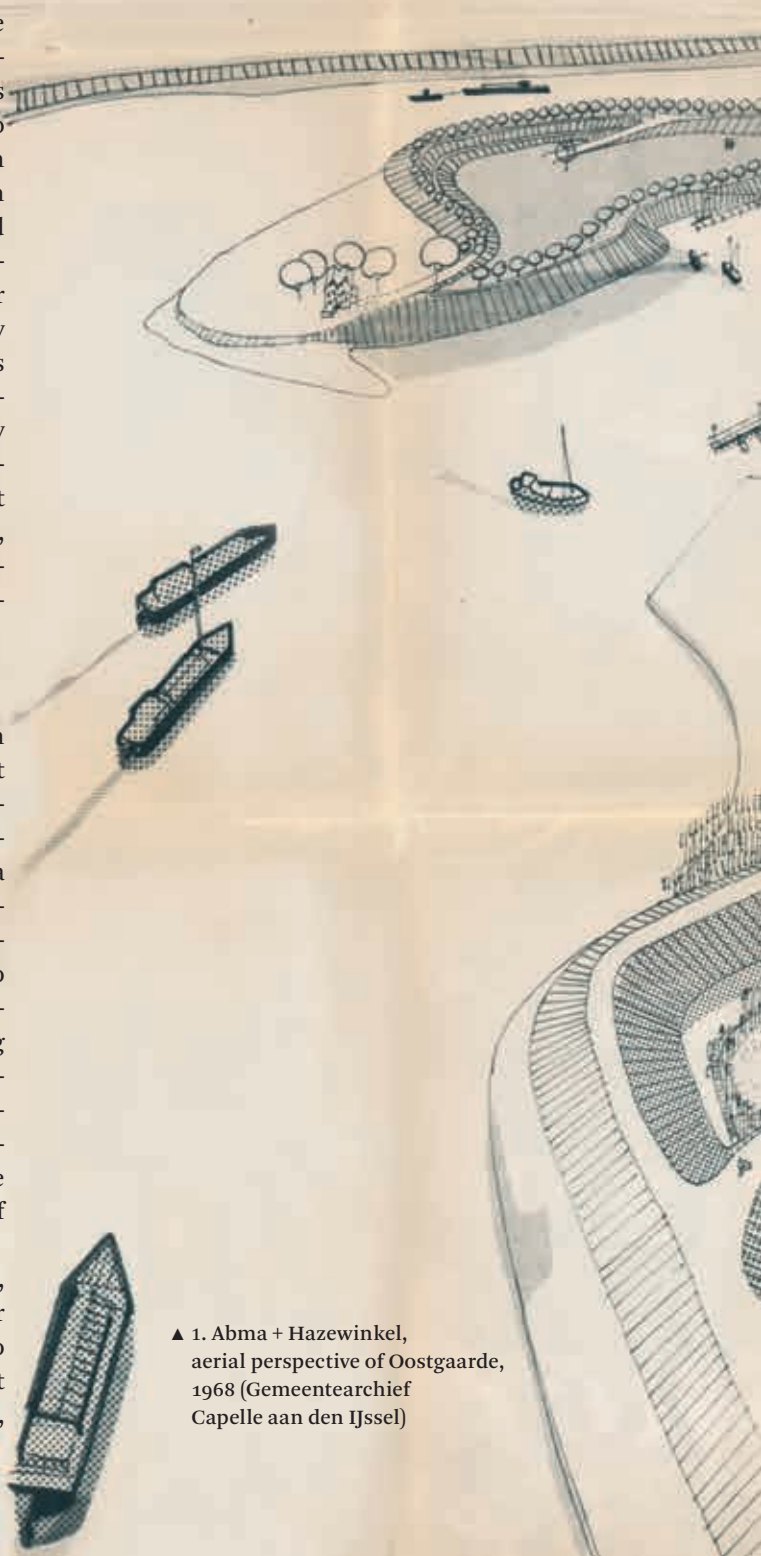
NOOR MENS AND HUGO VAN VELZEN

Capelle aan den IJssel is a showcase of relatively large districts encompassing every aspect of the architecture and urban planning of the Post 65 period.[1] This is the result of a rapid expansion arising from the need to house a substantial portion of Rotterdam's population growth. The term 'Post 65 architecture and urban planning', as well as being used by the heritage world to designate the period following post-war reconstruction, is also used to indicate specific stylistic and other distinguishing features. However, they do not fit easily under a single label. In this article Capelle features as a case study of the changes that took place in architecture and urban planning during this period. The key issues addressed are the social trends and ideas underpinning those changes and the phases they went through. The Rijksdienst voor het Cultureel Erfgoed, (RCE, Netherlands Cultural Heritage Agency) distinguishes three stages: growth, change, and differentiation.[2]

GROWTH OF CAPELLE

The expansion of Capelle marks a particular phase in the demographic development of the Netherlands that was promptly dubbed a 'population explosion'. Initially, planners and demographers greatly underestimated the population growth. In the Tweede Nota voor de Ruimtelijke Ordening (Second Policy Document on Spatial Planning), published in 1966, the magical figure of 20 million inhabitants by the year 2000 appeared. This resulted in a huge construction programme, not least because of a fall in the per dwelling occupancy rate. It was all about large numbers, quantity, mass housing. Shortly after the war, the government had already started to incentivize system building and industrial construction methods with an eye to speeding up the construction of large numbers of dwellings.[3]

After the Second World War the population of Capelle, a linear dike village along the Hollandse IJssel river to the east of Rotterdam, grew from around 9,000 inhabitants in the mid-1950s to 57,000 in 1988. The first expansion schemes, Schenkel and Middelwatering,

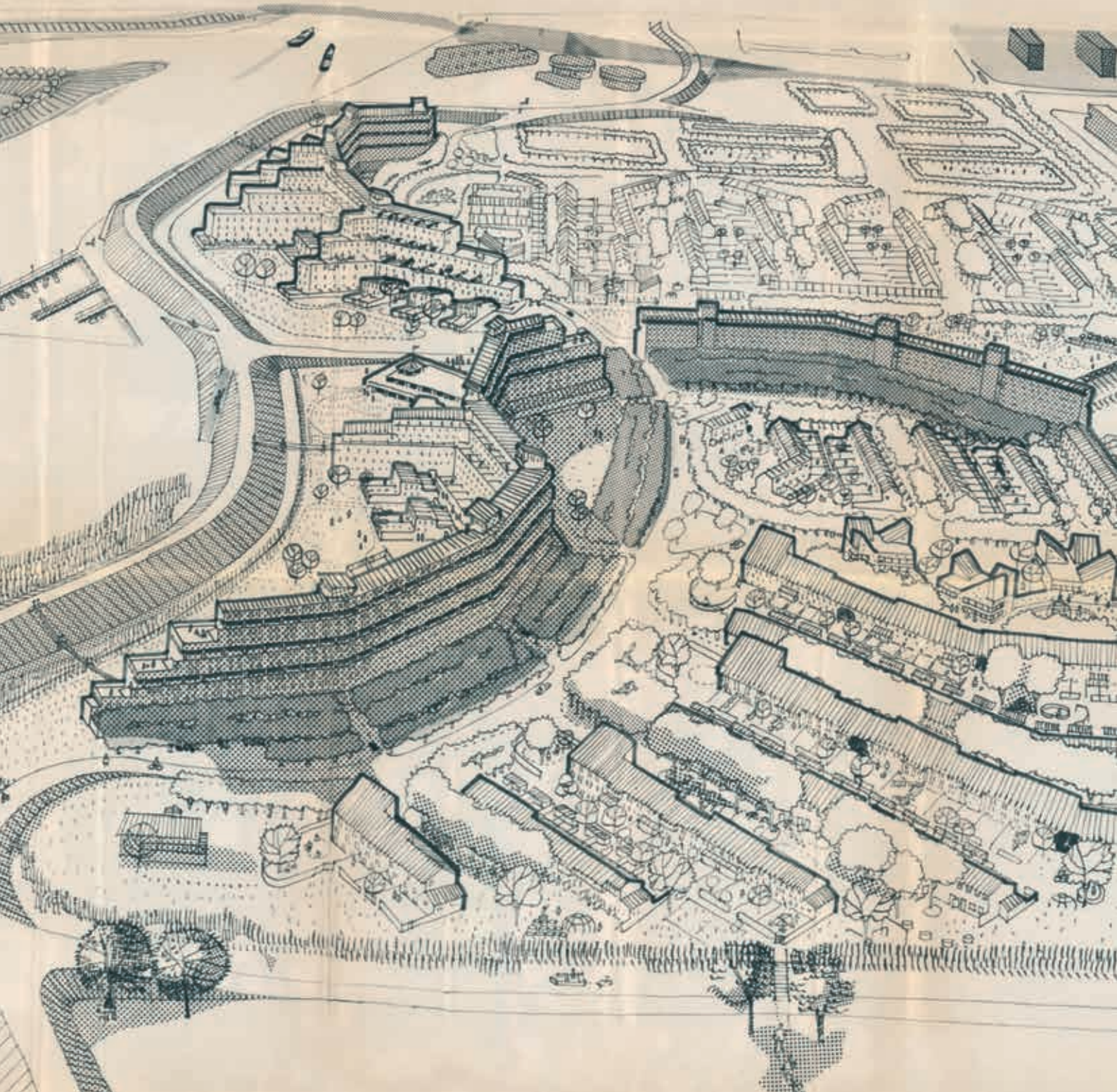


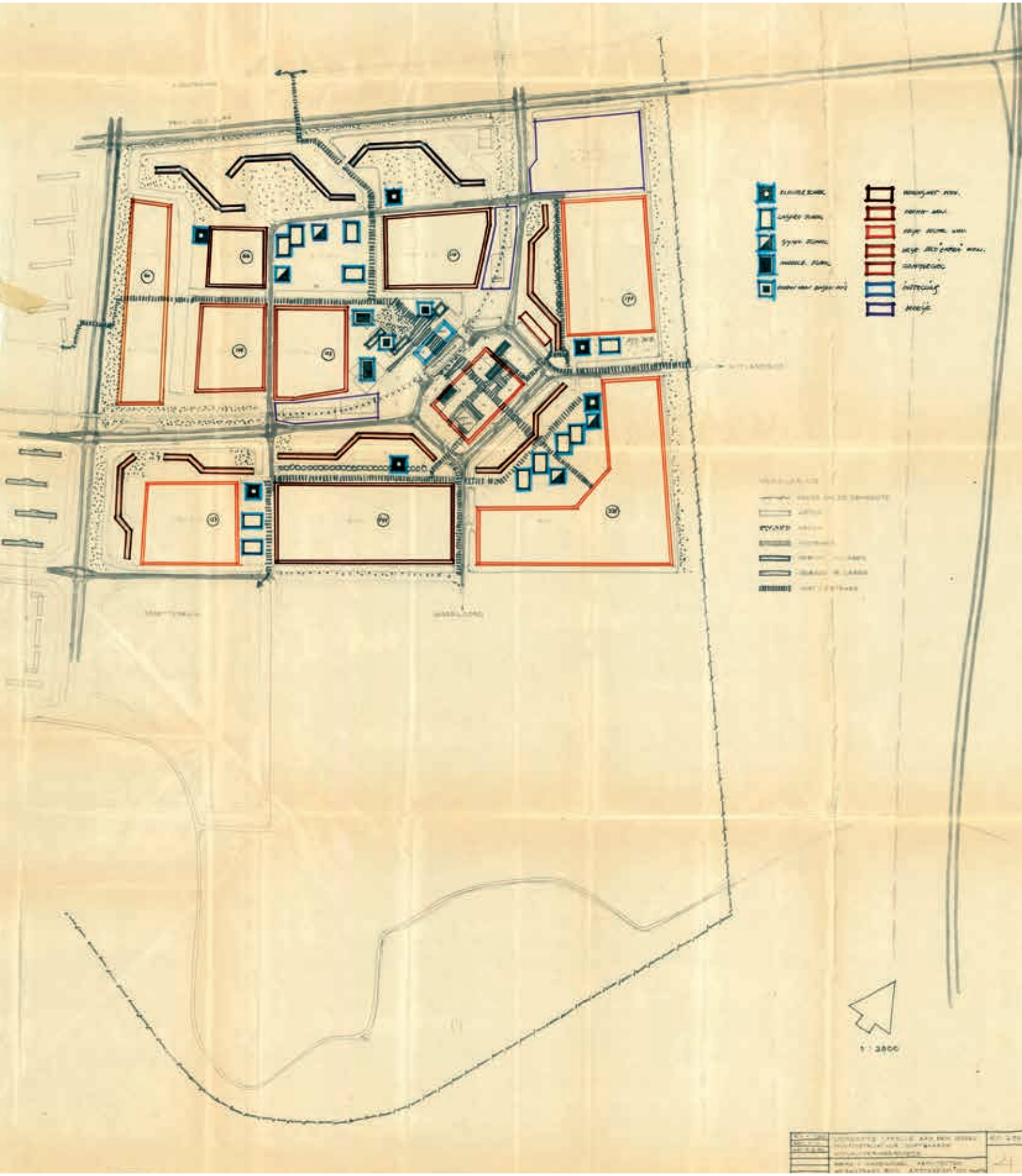
▲ 1. Abma + Hazewinkel, aerial perspective of Oostgaarde, 1968 (Gemeentearchief Capelle aan den IJssel)

were built in the 1950s and '60s and were connected to the village's existing cores. From the 1960s onwards two entirely new districts were added, which had no connection with the historical cores: Oostgaarde far to the east and, to its north, Schollevaar. Finally, in the 1990s the open space along the Hollandse IJssel between Capelle and Rotterdam was fully developed, first with the district of 's-Gravenland and in the 2000s with Fascinatio. This article discusses the developments in Capelle as reflected in two districts, Oostgaarde and Schollevaar.

BIGGER ROLE FOR ARCHITECTS

After the Second World War the guidelines for spatial planning were enshrined in the Wederopbouwwet (Post-war Reconstruction Act) of 1950. The key task was to set out the infrastructure, the functional zoning, and the positioning and typology of the buildings in a spatial masterplan. In practice this was felt to be inadequate and there were constant deviations from it. There was a need for more streamlined procedures and for long-term plans capable of responding to





2. Abma + Hazewinkel, visualization sketch of Oostgaarde main structure, 1967 (Gemeentearchief Capelle aan den IJssel)

change. The 1965 Wet op de Ruimtelijk Ordening (Spatial Planning Act) made urban planning more flexible and shifted the primary focus from the planning process to the zoning plan. Local councils could establish general zoning plans without needing to provide them with an urban planning framework. One consequence of this shift in emphasis was a bigger role for architects in urban design and a blurring of the distinction between the two disciplines. This trend was particularly strong in the 1970s, when architects conquered the territory of urban planning design. Urban planners confined themselves to general sector plans.[4]

OOSTGAARDE

The first urban development plans for Oostgaarde were based on the Rotterdam-Oost/Capelle aan den IJssel (RoCa) structure plan and the Rechter Maasoever regional plan. Rotterdam and Capelle together developed a structure plan for a satellite town that lay partly within the City of Rotterdam and partly in Capelle. Although never officially approved, until 1974 it acted as a plan underlay that guided, and in some instances, determined the planning.[5] From 1960 onwards, the Instituut Stad en Landschap (Town and Country Institute), acting as an external urban development agency, produced the first designs for the northern part of Oostgaarde. A key component of the plan was the expansion of the Rotterdam metro network. In Oostgaarde a town centre and a metro station were planned at a point along a metro circle line. Most of the buildings were to be system-built high-rise. The metro line would be flanked by ERA apartment buildings designed by Rein Fledderus (1910-1970), while the town centre would be surrounded by apartment buildings constructed according to the MUWI system.[6]

Following criticism of the Stad and Landschap plan, in particular by Provinciale Planologische Commissie (Provincial Planning Committee, PPC), the council consulted another urban planner: Tjakko Hazewinkel (1932-2002) of Abma + Hazewinkel Architecten. The council asked him to produce a new plan for the northern part of the district. Hazewinkel retained the metro circle line and the adjacent town centre (fig. 1). He put the Fledderus-designed ERA apartments in a continuous line along the northern edge of the planning area. The fourteen-storey blocks were built between 1968 and 1970 and were promptly nick-named 'The Chinese Wall'. Hazewinkel placed the nine-storey MUWI-system apartment blocks at right angles to this 'wall'.

OOSTGAARDE ZONING PLAN

In 1968 the Capelle municipal council commissioned Hazewinkel to draw up a zoning plan for Oostgaarde and in April of 1969 appointed him external urban planner for the entire municipality. The collaboration with Stad en Landschap was terminated.[7] The metro line to Schollevaar in the RoCa structure plan was no longer a certainty. The provincial government in particular objected to the planned route and so it seemed only sensible to refrain from committing to the route and associated town centre, for the time being. Hazewinkel's proposal left open the possibility of following the original route directly behind the station or of designing a new, more easterly (curved or straight) route.[8] The IJsseloord area along the river was incorporated into the new district and zoned for housing instead of industry.[9] An added advantage of this was that the Hollandsche IJssel 'waterfront' could then also be utilized.

Hazewinkel employed high-rise as a spatial structuring element. A central spine of high-rise linked Fledderus's apartment buildings in the northern part of the district with apartment buildings along the Hollandse IJssel. This had the effect of dividing the planning area into compartments walled by high-rise and filled in with low-rise buildings on a smaller scale (figs. 1, 3 and 4). The high-rise architecture Hazewinkel had in mind appears to have been borrowed from the student housing block on Weesperstraat in Amsterdam that he had designed in 1966 with Herman Hertzberger (b. 1932).

Hazewinkel's plans for Oostgaarde and for the architecture of the high-rise buildings chimed with the ideas of Team X, a dissident grouping that emerged in the 1950s within CIAM (Congrès Internationaux d'Architecture Moderne). Its members criticized the reduction of urban planning to the four functions of living, working, leisure and traffic. They championed a livelier form of urban design that aspired to a harmonious blend of large- and small-scale development and a mix of functions. Their main mouthpiece in the Netherlands was the journal *Forum*.

A NEW COURSE

While Team X's ideas might have been intended to overcome the drawbacks of 1950s housing, they were unable to dispel the antipathy to large-scale modernism.

In this Capelle was no exception, with an aversion to high-rise emerging around 1970 among both residents and the municipal council.[10] There was a demand for a higher percentage of low-rise, single-family homes. In 1972 the council resolved to revise the zoning plan, which was considered too detailed and too inflexible.[11]

The metro circle line disappeared from the revised zoning plan; the resulting space was zoned for low-rise housing. The planned ring road for cars was replaced by a route for slow traffic (mopeds, cyclists, pedestrians). The desired ratio of high- to low-rise development could only be achieved in those 'com-

partments' where development was minimal or yet to begin.[12] A six-storey complex comprising a nursing home and deck-access flats designed by the Van Tijen – Boom – Posno – Van Randen architecture studio was already under construction. The large high-rise-walled compartments were usually filled in by a single developer working with a single architect who assumed responsibility for both the architectural and the spatial design. Several complexes dating from this period adhered to the theme of angled blocks and diagonal lines for which Hazewinkel had laid the groundwork in his plan for the northern part of the district.

The municipal council did not approve the revised zoning plan until April 1976. In the interim, the compartments were filled in on the basis of preliminary planning decisions.[13] Such decisions, laid down in the Wet op de Ruimtelijke Ordening (spatial planning act), made it possible to implement building programmes that were consistent with the revision of the zoning plan (fig. 5). Architects produced sketch plans in consultation with the public works department, headed since 15 September 1971 by J. van Lokhorst.[14] In 1972 he had recruited the urban planning designer Jan Zijp with whom he had previously worked in Amstelveen. The collaboration between Hazewinkel and Van Lokhorst and Zijp was rather fraught. Haze-

► 3. Abma + Hazewinkel, Oostgaarde zoning plan design, circulation system/blocks of flats, June 1968 (Gemeentearchief Capelle aan den IJssel)

▼ 4. Abma + Hazewinkel, artist's impression of Oostgaarde, 1968 (Gemeentearchief Capelle aan den IJssel)

5. Public Works, urban planning department, Oostgaarde zoning plan, 1975 (Gemeentearchief Capelle aan den IJssel)

winkel appeared to be geared more towards broad outlines, the structure and the design. As he saw it, his task was to produce a spatial structuring plan.[15] He appears to have had little to do with the revision of the subplans.[16]

The revised zoning plan upheld the principle of dividing the plan into clearly identifiable neighbourhoods. The planned green structure was also retained, but the central high-rise spine in the old plan was replaced by 'a clearly recognizable new form of multi-storey housing'.[17] Financial constraints meant that the low-rise would have to be fairly dense.[18] The chosen solution entailed multilevel low-rise, which is to say blocks of up to four or five storeys high that would border the centrally located green belt. The belt ran north to south with on one side water flanked by a route for slow traffic, replacing the road for vehicular traffic proposed by the earlier plan. Branching off this north-south green strip in an easterly direction were similar green structures that traversed that area and ended in a recreational area (Hitland). Buildings on that side of the district were to be kept low in order to soften the transition to open countryside. The green structures would be accompanied by cycle and walking paths. The access structure for cars was separate from this. Frequent bends and T-intersections were designed to slow vehicular traffic.[19]

Along the set-aside metro line route, the previously planned high-rise was to be replaced by low-rise apartment blocks. On 8 August 1973, Van Lokhorst pre-

6. Plaza in De Terp shopping centre, 1975-1980, (photo Han van Senus, Historische Vereniging Capelle aan den IJssel)

sented the council with an alternative plan for this section: a plan by Benno Stegeman (1930-2014) for 878 dwellings with a density of around 125 dwellings per hectare. Stegeman had designed an experimental housing type with covered parking, partly beneath the dwellings and partly beneath a roof that doubled as a garden. At the end of the metro line a shopping centre (De Terp) was projected, a location that precluded any future extension of the line to Hitland.[20] The shopping precinct and the adjacent housing were to be built on top of and against a (covered) parking deck at ground level. The dwellings were separately accessed from a raised ground level. This use of 'decked housing' with a clear separation of cars and pedestrians is typical of the 1970s. The complex contained a wide variety of housing types, many of which were ground-accessed. The designer of the shopping precinct was Chiel Verhoeff (1942-2014) of Bakker & Verhoeff (fig. 6).

SCHOLLEVAAR

The Derde Nota over de Ruimtelijke Ordening (Third Policy Document on Spatial Planning, 1973-1983) provided the framework for the designation of a series of towns and villages as so-called 'groeikernen' (new-towns). The central government, based on target numbers of dwellings to be built in the growth areas, undertook to contribute to the creation of a varied living, social and work climate in these towns and villages. In 1976 Capelle aan den IJssel was designated a growth centre. It was agreed with the central government that Capelle would house 50,000 inhabitants by 1 January 1981.[21]

The experiences gained in Oostgaarde formed the basis for the ideas about the development of Schollevaar. The basic premises were a more process-oriented, integrated planning, a design based on the historical topography, public participation, and scaling down, with smaller schemes and neighbourhoods than in Oostgaarde. Of particular importance was an urban design based less on clearly defined compartments and more on spatial design themes.

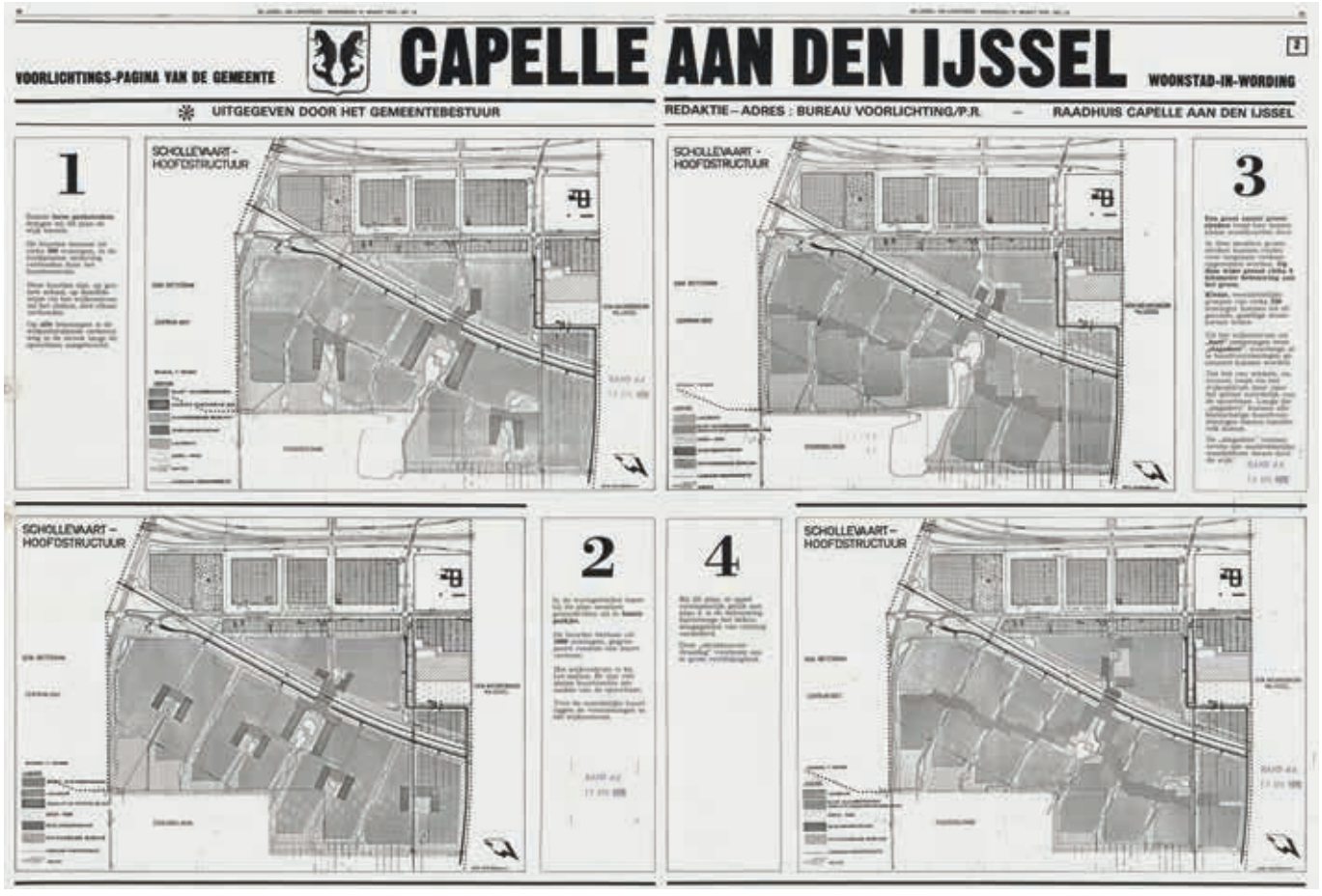
THE MAIN STRUCTURE

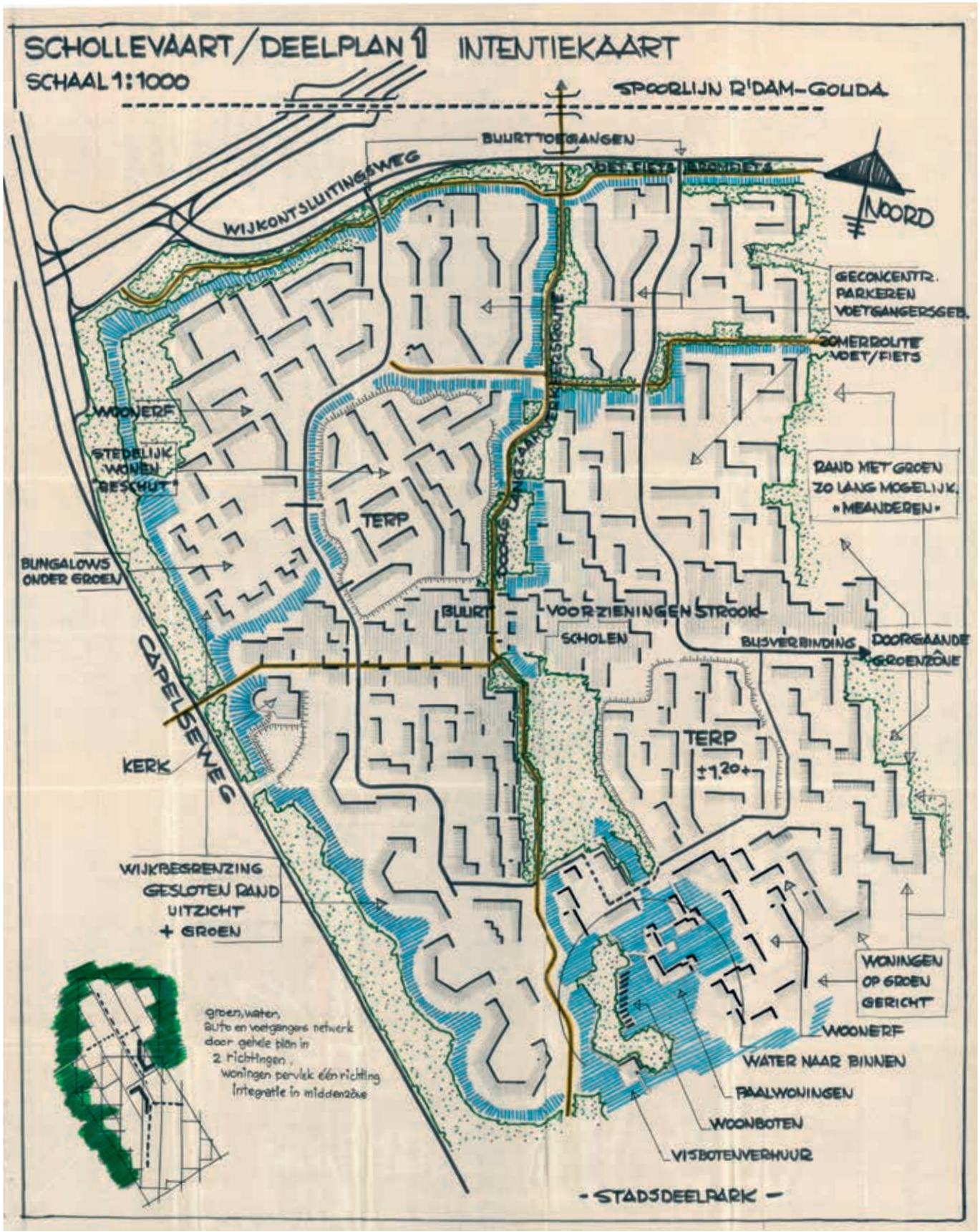
The Schollevaar plan area was bounded to the south by a town park in the making, the future Schollebos, and to the north by a railway line and yet-to-be-built station. The railway line had a major effect on the layout of the district. With noise nuisance in mind, the line was bordered on both sides by an eighty-metre-wide strip where no housing could be built. These strips of land were used instead as access roads for the district. The maximum distance between local amenities and residential areas was set at eight hundred metres. It was logical to couple the town centre with the station, thereby giving the district a clear centre. On 10 March 1976, the council's information page about the new residential city of Capelle aan den IJssel presented the public with four plan versions based on the 1973 terms of reference (fig. 7). Local residents were invited to make their preference known. The design that received the most votes – version 3 – was then worked out in greater detail.[22] The main premise was a number of green strips between neighbourhoods. These 'green fingers' started in the south from where they penetrated deep into the residential areas. They incorporated the routes for slow traffic. The green space would be lined by some eight kilometres of buildings. The rest of the plan consisted of small, self-contained neighbourhoods of around 250 dwellings. Local amenities were accommodated in a strip running from west to east, more or less bisecting the area to the south of the railway line. At the district centre this strip, which ran like an 'artery' through the district, would branch off in the direction of the area north of the railway line and was a potential main walking route.

SCHOLLEVAAR ZONING PLAN

Once the terms of reference and the layout of the main structure had been established, the zoning plan was

7. Information sheet issued by the Capelle aan den IJssel municipal council showing four versions of the main structure of Schollevaar, 10 March 1976 (Gemeentearchief Capelle aan den IJssel)





8. Schollevaar design team (Zijp, Van Ardenne, Sterenberg), intentions plan for sub-plan 1, July 1976
(Gemeentearchief Capelle aan den IJssel)

drawn up. Jan Zijp, from the urban planning section of the public works department, was appointed urban planner and chair of the architectural team. The architects Han van Ardenne (1938) and Jan Sterenberg (1923-2000) were tasked with supervising the architecture and urban design of the individual housing schemes. Together with Zijp they made up the design team for the district, at that point still known as Schollevaart. They were later joined by a landscape expert from the Boer architectural practice. Design sessions were held in Van Ardenne's office in Arnhem.[23]

Construction of the first dwellings was intended to commence in 1977. For the most westerly section of the district a detailed zoning plan (subplan 1) was drawn up; for the rest of Schollevaar a general zoning plan. The design team began by formulating the guidelines and the structuring elements for subplan 1, which they then reproduced in an intentions plan (fig. 8). The idea was that the architects would translate these intentions fairly freely into workable forms. The design team recorded the intentions plan and the guidelines for further elaboration in the subplan in the so-called red book.[24]

Subplan 1 comprised the two most westerly lobes of the district and covered an area of some forty hectares. It was scheduled to contain around 1,500 dwellings, 13 per cent of which would be social housing. The local amenities formed a continuous structure within the amenities strip running through the centre of the plan area.

Subplan 1 was made up of four lobe-like neighbourhoods linked to the amenities strip, surrounded by green space and accessed via a looping local distributor road. The pedestrian zones were structuring elements, connecting the neighbourhoods to the amenities strip that ran like a raised spine through the plan. More or less diagonally positioned pedestrian routes made it easy for people to find their way from the outskirts to the higher and more densely built central area containing amenities and from there to the civic centre. Each neighbourhood was divided into smaller units that would be designed by different developers and architects and could in turn have a different subdivision. The residential environments ranged from low density housing in or beside green space (and water) on the outskirts of the plan area, to urban (compact) housing in the vicinity of the amenities strip.

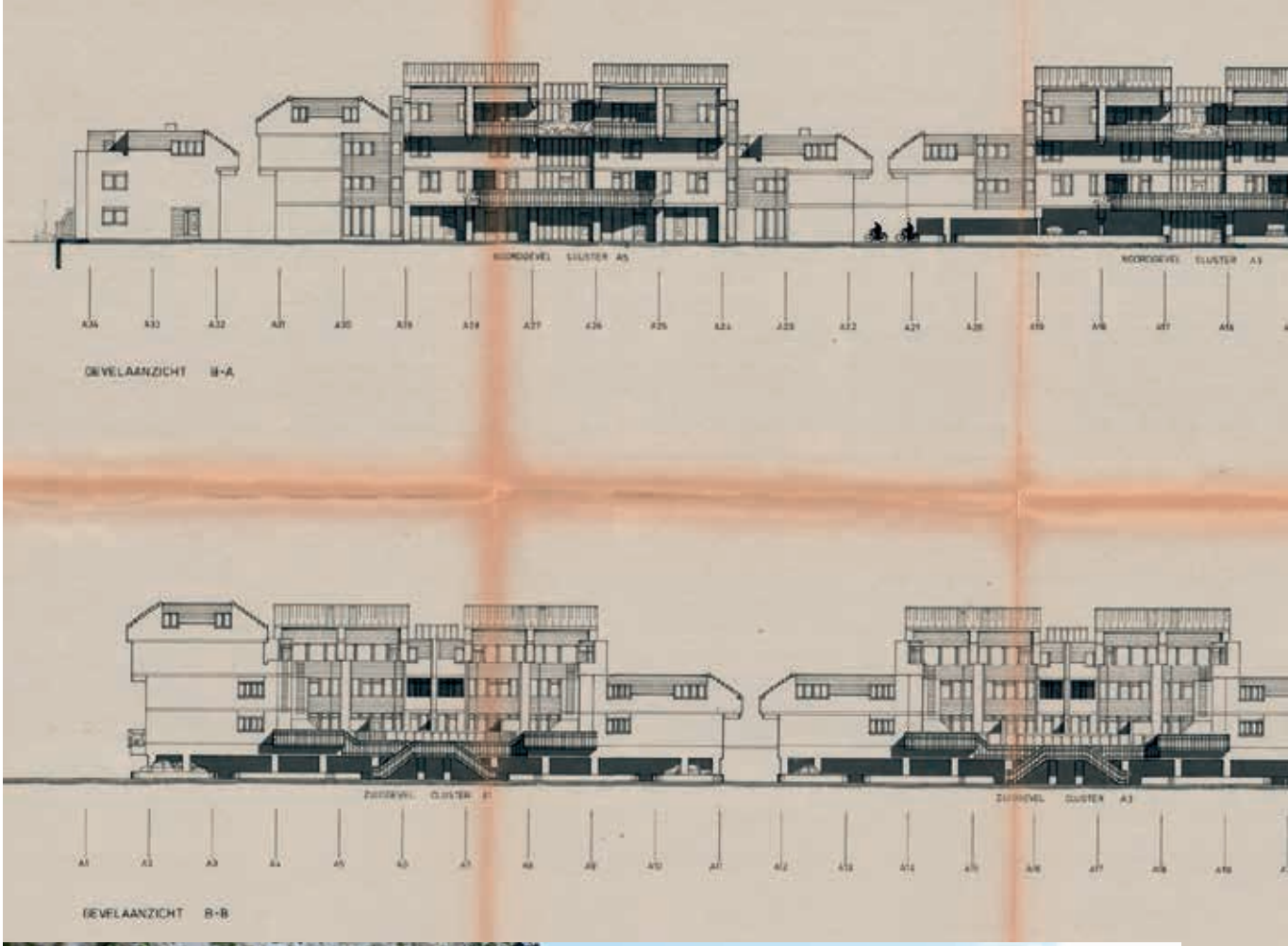
Contrasts, such as differences in building height, were to be employed to counteract monotony. There were single-storey dwellings with a flat roof as well as four-storey dwellings with a pitched roof. Ground level variations also offered possibilities for introducing diversity. One to 1.5 metre-high mounds were envisaged either side of the amenities strip. The red book included illustrations of different types of residential settings: houses along a traffic street, houses along a pedestrian street, houses around a court (home zone), clusters of houses bordered by green space, houses surrounded by greenery and houses along a waterway.

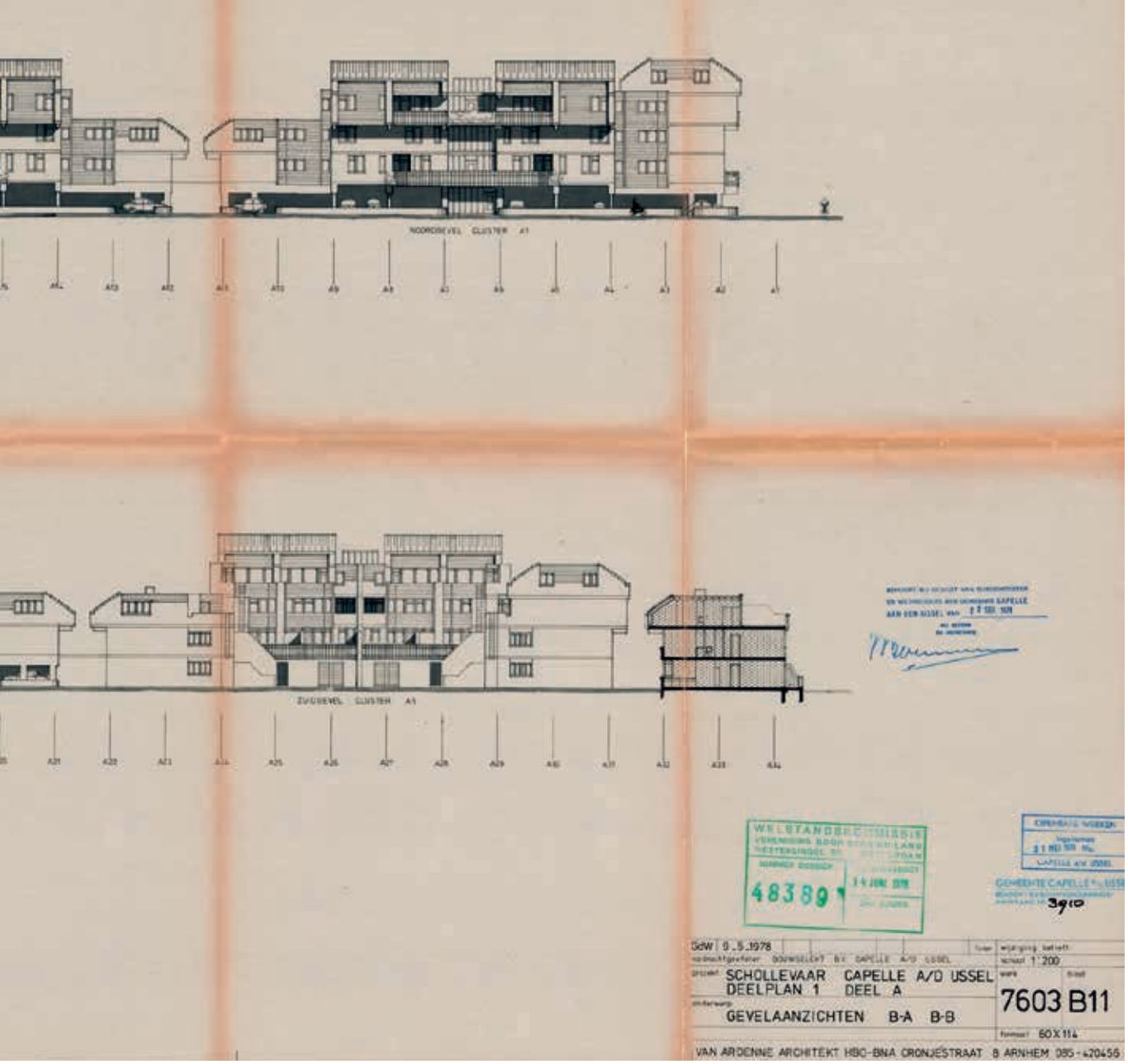
On 26 September 1977, the zoning plan was adopted by the municipal council. From that moment the new district was no longer called Schollevaart, but Schollevaar. On 29 November 1977 the foundation stone was laid and a year later the first of the 6,250 planned dwellings were finished. There was differentiation in dwelling size, type (single-family, ground-accessed, apartment buildings), and financing (social, subsidized and private housing). Sixty-seven per cent of dwellings were to be ground-accessed, 33 per cent in apartment buildings. The different types of dwellings were to be mixed as much as possible.[25]

THE NEIGHBOURHOODS IN SUBPLAN 1

As well as diversity the planners also strove for coherence, which was to be achieved by interlocking the individual neighbourhoods. Variation was attained by employing different densities and building heights, with the highest densities along the pedestrian and amenities strips. There were also differences in screening, with a substantially closed elevation fronting onto the district access road and a more open aspect on the eastern and western edges of the plan area. The difference between public and private was emphasized by an alternation of introvert and extravert living. One example of introvert living was a cluster of patio dwellings in the Dansenbuurt; designed by the architectural firm A. van der Lek, they were the first patio dwellings in Capelle aan den IJssel. In plan areas with a dense, urban development where the streets required a degree of coherence, the planners turned to decked housing. This was used, for example, in the amenities strip, to a design by Van Ardenne (figs. 9 and 10). To visually underscore its role in the main structure the strip was 'thickened' with low-rise apartment buildings, which had the added advantage of enabling the amenities to be integrated with the dwellings.

Sterenberg designed the dwellings for the southern 'mound', which rose 1.6 metres above grade. Sterenberg's practice had previously employed parking decks and decked housing in Lewenborg (Groningen) and in Buytenwegh De Leyens (Zoetermeer) and that was what he opted for here. In Schollevaar as a whole Sterenberg was commissioned to design 390 dwellings. In addition to four decked housing units, he also built low-rise apartments and single-family dwellings ranging from two to six room dwellings in different widths. For the construction of the project Sterenberg collaborated with ERA, which had also built the decked housing in Zoetemeer.[26] The dwellings on the northern mound, designed by Leo de Jonge (1919-2009), were


GEVELAANZICHT B-A
GEVELAANZICHT B-B



initially intended to be decked housing, but cost considerations eventually led to the parking decks being removed from the plan.

SUBPLAN 2

In 1978 the zoning plan plus the sketch design containing the architects' plans for the second area were published (fig. 11). The planned shopping centre had been dropped. In compensation, the pedestrian zone was made more attractive by giving the amenities strip a canal profile with canal walls incorporating live/work dwellings. The kinked canal (Floris Burgwal), with several bridges, was lined by a wide variety of low-rise apartments designed by Van Ardenne.

Most of the social housing was located in the northern part of the plan area. These dwellings, consisting in part of low-rise apartment buildings, lined pedestrian streets and squares that were linked directly with the green zone between subplans 1 and 2. The residential area to the south of the amenities strip was divided into neighbourhoods either side of a green zone, an offshoot of the local public park. The more upmarket dwellings were on the southern rim (the 'golden rim'). Here there were intimate housing enclaves bordering greenery and water. The dwellings were arranged in clusters around home zones. In the southwest corner this took the form of a neighbourhood of three islands designed by Ton Alberts (1927-1999).

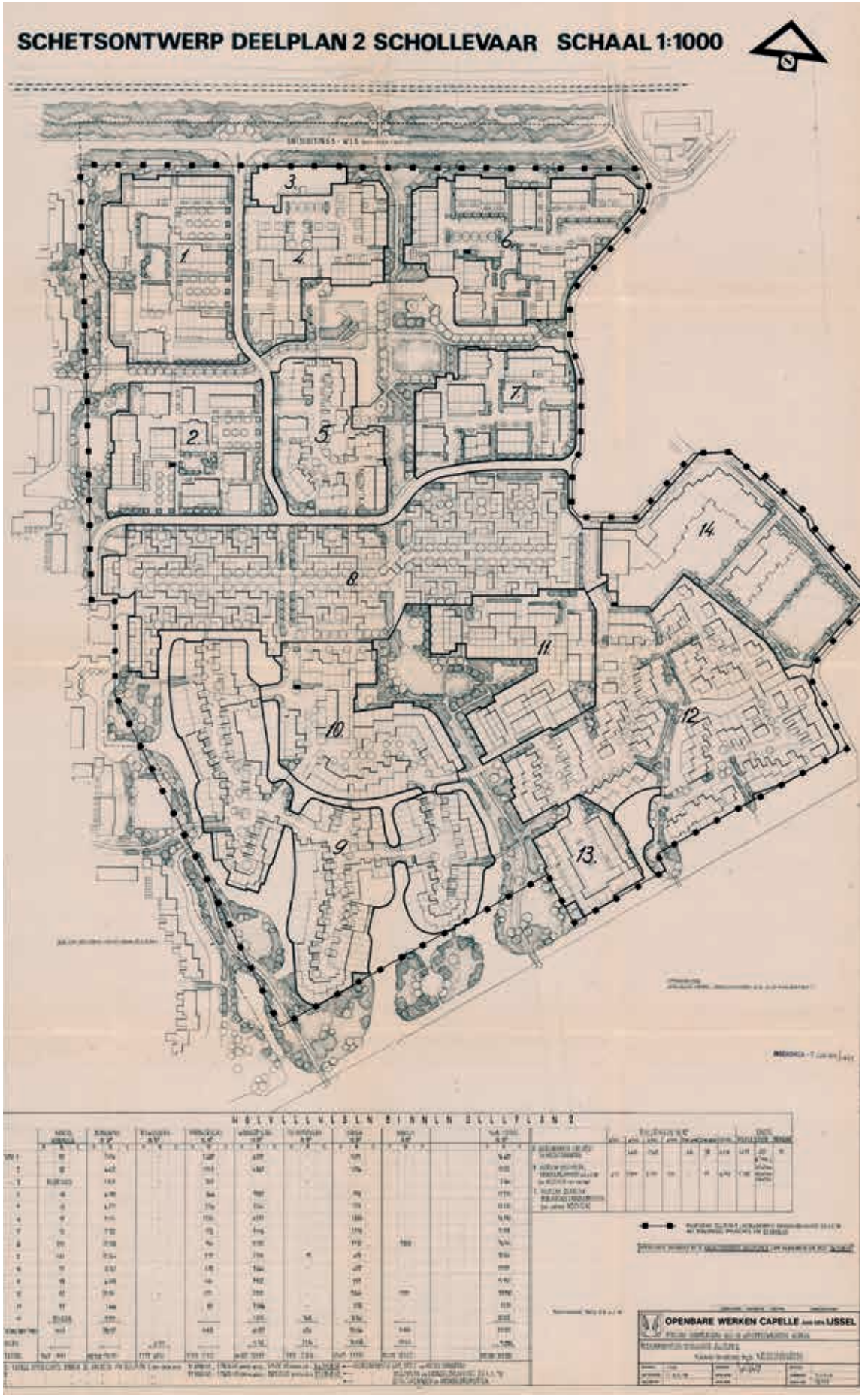
ECONOMIZING

At the beginning of the 1980s, rising mortgage rates led to a drop in demand for private sector dwellings. It

▲ 9. J.H. van Ardenne, front elevations of Ervenbuurt houses and amenities, 1978 (Gemeentearchief Capelle aan den IJssel)

◄ 10. J.H. van Ardenne, Ervenbuurt housing, 1977-1981 (photo Contrei)

11. Public Works, sketch design for Schollevaar sub-plan 2, 1978 (Gemeentearchief Capelle aan den IJssel)



was therefore decided to build more social housing, which in turn entailed higher densities.[27] That density is very obvious in the eastern part of the district. Amenities were also severely reduced and there were increasing doubts as to the feasibility of the amenities strip. While the strip continued to form the spine of this subplan, it was now no more than a pedestrian route to the centre and the station; there were no amenities. Fiolet-Limburg, a firm of architects and urban designers, designed a complex comprising some 550 social housing units and 79 one- and two-person units in the eastern section of the strip (fig. 12). The four- and five-storey apartment buildings containing the dwellings stand along a leafy avenue.

The Schollevaartse road, part of an extended slow traffic route beginning in Oostgaarde (beside the Hollandse IJssel) and ending at the Rottemeren, forms the border between this area and the most easterly one. Here the 'amenities' strip consists almost entirely of multi-storey housing and terminates with a few free-standing local amenities. The southwestern edge of the subplan is marked by 57 state-subsidized private dwellings. To their north a planned neighbourhood centre in the form of a square lined by shops was also severely pared down. Staggered bungalows (patio dwellings) designed by A. van der Lek bordered this area to the northeast.

The area to the north of the railway line was largely built in the final phase of the Post 65 period, during the transition to rationalization and differentiation. From the beginning of the 1980s there was mounting criticism of the 'New Frumpishness', as the architecture of the 1970s was dismissively labelled. The first steps towards the later 'framework urban design', with its clear geometric patterns, can already be discerned in the street plan for this area. The architecture here cannot be seen as anything other than a lacklustre rendering of the bright future people had initially envisioned for Schollevaar.

CONCLUSION

While the Cultural Heritage Agency identified three phases in the architecture and urban planning of the Post 65 period, in Capelle aan den IJssel we have identified four, partially overlapping phases. The first phase was marked by economic growth and quantitative thinking. Rising dissatisfaction with the results (large-scale districts dominated by cookie-cutter high-rise development) led to the realization that this was a dead-end approach. Compounding this was the lack of interest in single-family housing when this was the most sought-after section of the housing stock, including in the Greater Rotterdam Area.

This did not immediately trigger a breakthrough of small-scale architecture and urban design in the second phase. Under the influence of Team X and its

12. Fiolet-Limburg buro voor architectuur en stedebouw, low-rise multilevel housing, Schollevaar sub-plan 3a, 1982-1983 (photo Contrei)

Dutch protagonists around the *Forum* magazine, even megastructures were proposed, the best-known Dutch example being the Pampus project of Van den Broek & Bakema. Even cars were not banned initially. Criticism of the previous phase was expressed chiefly in a return of the artistic dimension (architecture and urban planning are more than politics and management) and in the conviction that the social dimension was embedded in the artistic dimension. Design became an end in itself. But even in this phase large-scale development was not eschewed in Capelle, as Hazewinkel's Van den Broek & Bakema-style complexes in Oostgaarde demonstrate.

Not until the third phase was there a more thorough change of course. Rising car ownership was encroaching on more and more public space at the expense of the attractiveness of an area. From the early 1970s, dissatisfaction with what had been built up to that point generated a wide-ranging interest in ecology, naturalness, and sociologically informed architectural experiments. After Hazewinkel's departure there was a change of course in Capelle as well. In the new suburbs of Oostgaarde and Schollevaar straight lines and monotonous repetition gave way to adventurous subdivision patterns and road structures featuring home zones; high-rise was abandoned and replaced by single-family dwellings and multilevel low-rise. Playfulness and fantasy were given full rein. Capelle also experienced another trend typical of the 1970s: the aspiration for resident participation. This shift came not from the world of spatial planning but from that of public housing.

And it was this domain that eventually sealed the fate of the home zones: in the context of the economic crisis of the early 1980s, the ideal of village-style low-rise was incompatible with the need to deliver large numbers of dwellings within a certain budget. With the market dictating the price, the emphasis shifted to the rationalization of the building process. Whimsicality and playful brick architecture – hallmarks of the 1970s – had had their day. Straightforward rational subdivisions and a more functional architecture took their place. This fourth and final phase manifested itself on the northeast side of Schollevaar.

NOTEN

1 This article is based in part on a study conducted by Contrei and Noor Mens for the municipality of Capelle aan den IJssel.

2 *Verkenning Post 65. Post 65. Nieuwe perspectieven tussen welvaart en weerstand*, Amersfoort 2018, 11; K. Somer, *Groei, verandering, differentiatie. Architectuur in Nederland 1965-1990*, Amersfoort 2020, 5.

3 H. Hellinga, 'De Woning als massaprodukt', in K. Bosma and C. Wagenaar (eds.), *Een geruisloze doorbraak. De geschiedenis van architectuur en stedebouw tijdens de bezetting en de wederopbouw van Nederland*, Rotterdam 1995, 242-267.

4 N. de Boer and D. Lambert, *Woonwijken. Nederlandse stedebouw 1945-1985*, Rotterdam 1987, 31.

5 F. Hazewinkel, *De ontwikkeling van het Roca-gebied 1959-1979*, Rotterdam 1981; F. Palmboom, 'Stadsuitbreiding en de vorm van de stad. Het RoCa-gebied geanalyseerd', *de Architect*, Thematic issue on new-build districts (1990) 39, 15-21.

6 Capelle aan den IJssel Municipal Archives (GAC), entry 1340, archive of the municipality of Capelle aan den IJssel, inv. no. 2116. Letter from Municipal Executive to T. Hazewinkel, 30 May 1967.

7 GAC, entry 1340, archive of the municipality of Capelle aan den IJssel, inv. no. 2116. Letter from the Municipal Executive to Stad en Landschap, 27 March 1969.

8 GAC, entry 1340, archive of the municipality of Capelle aan den IJssel, inv. no. 2203. Future development of Oostgaarde in the municipality of Capelle aan den IJssel, September 1968.

9 GAC, entry 1340, archive of the municipality of Capelle aan den IJssel, inv. no. 2203. Letter from M.G. Ydo to the municipal executive of Capelle aan den IJssel, 7 March 1968.

10 W. van Bremen et al., *Van Dijkdorp tot woonstad. Een eeuw bouwen en wonen in Capelle aan den IJssel*, Capelle aan den IJssel 2009, 79.

11 GAC, entry 1340, archive of the municipality of Capelle aan den IJssel, inv. no. 2232. Section O.

12 GAC, entry 1340, archive of the municipality of Capelle aan den IJssel, inv. no. 2227. Explanatory notes on the urban design sketch plan for areas K and L 'Oostgaarde' in Capelle aan den IJssel, 4 July 1973.

13 GAC, entry 1340, archive of the municipality of Capelle aan den IJssel, inv. no. 2204. Made available to RB for inspection and confirmation 10-2-1969 until revised requirements are confirmed.

14 Van Lokhorst, who had previously been in charge of the civil engineering department of the municipality of Amstelveen, was appointed managing director of Capelle aan den IJssel's public works department on 15 September 1971.

15 GAC, entry 1393, archive of the public works department, inv. no. 477. Account of discussion between Van Lokhorst, Hazewinkel, Brands (Abma + Hazewinkel), Veldmeijer, Zijp and Van Putten (dept. planning and public works), 26 February 1973.

16 He had received a request for this revision from the municipal executive on 5 March 1969. GAC, entry 1393, archive of the public works department, inv. no. 477.

17 GAC, entry 1340, archive of the municipality of Capelle aan den IJssel, inv. no. 2209. Regulations and explanatory notes pertaining to the 'Oostgaarde' zoning plan.

18 GAC, entry 1340, archive of the municipality of Capelle aan den IJssel, inv. no. 2209. Regulations and explanatory notes pertaining to the 'Oostgaarde' zoning plan.

19 GAC, entry 1340, archive of the municipality of Capelle aan den IJssel, inv. no. 2209. Regulations and explanatory notes pertaining to the 'Oostgaarde' zoning plan.

20 Van Bremen et al. 2009 (note 10), 85.

21 GAC, entry 1393, archive of the public works department, inv. no. 483. Letter from Capelle aan den IJssel public works department to the Public Housing Board, 18 September 1978.

22 GAC, entry 1340, archive of the munici-

pality of Capelle aan den IJssel, inv. no. 2267. Partial plan, mainly Schollevaart.
23 Interview with Han van Ardenne, 20 May 2022.
24 GAC, entry 1340, archive of the municipality of Capelle aan GAC IJssel, inv. no. 2282, Schollevaart subplan 1, July 1976.
25 GAC, entry 1340, archive of the municipality of Capelle aan den IJssel, inv. no. 2265. 'Regulations and explanatory notes pertaining to the Schollevaart zoning plan', July 1977.
26 M. Kruidenier, *Architect Jan Sterenberg en het wonen in de jaren '70. Groeikernen en woonmilieus*, Rotterdam 2021, 148-149.
27 Van Bremen et al. 2009 (note 10), 107.

DR N. MENS studied architectural history at the VU Amsterdam and received her PhD from Eindhoven University of Technology (TU/e) with a thesis on heritage significance assessment of post-war neighbourhoods. She is an independent architectural historian and writes regularly on the history of architecture and urban planning history of the twentieth and twenty-first centuries. The primary focus is on the post-war reconstruction and the Post 65 period.

As founder and researcher/consultant, MSC H. VAN VELZEN plays a pivotal role in the Contrei agency. He began his career as an architect specializing in renovation and restoration techniques (TU Delft) and in the course of practising as an architect in the field of heritage and spatial consultancy has built up 25 years' worth of experience in cultural-historical research and consultancy.

The article is a work of co-authorship.

CHANGING IDEALS

POST-65 DISTRICTS IN CAPELLE AAN DEN IJSSEL

NOOR MENS AND HUGO VAN VELZEN

In this article Capelle aan den IJssel features as a case study of changes in architecture and urban design in the Post-65 period (1965-1990). During those years the original dike village of Capelle, on the eastern edge of Rotterdam, expanded significantly. Several completely new districts were developed, among them Oostgaarde and Schollevaar. This article focuses on the social trends and ideas that influenced the changes and what phases can be discerned in those changes.

The first phase was dominated by economic growth and quantitative thinking. In the final phase of the post-war reconstruction this resulted in large-scale districts with a lot of high-rise flats and a repetition of identical housing complexes. Growing discontent with the outcome eventually led to the realization that this type of spatial design had no future. It also largely ignored the single-family dwelling, yet this was precisely the section of the housing stock that was very much in demand, including in the greater Rotterdam area.

This did not, however, prompt an immediate breakthrough of small-scale architecture and urban design in the next phase. Under the influence of Team X and its Dutch offshoot centred around the journal *Forum* there were even proposals for megastructures, the best-known Dutch example being the (unbuilt) Pampus project of Van den Broek & Bakema. Even cars were initially tolerated. The urban designer Tjakko Hazewinkel proposed one such megastructure for Oostgaarde.

From the early 1970s, criticism of large-scale developments led to a broad interest in ecology, return to nature and sociologically-informed architectural experiments. Following Hazewinkel's departure, there was a change of course in Capelle, too. In the new residential areas of Oostgaarde and Schollevaar, orthogonality and repetition gave way to adventurous housing subdivisions and road layouts featuring home zones; high-rise was renounced and replaced by single-family dwellings and multilevel low-rise. Playfulness and fantasy were given free rein. This was also facilitated by the introduction of sector plans, which allowed architects much greater freedom.

Rising mortgage interest rates and the economic recession of the early 1980s led to a sharp decline of the demand for private sector housing. It was decided to build more social housing, which necessarily entailed higher densities. That densification can be clearly seen in the eastern and last realized section of the district. In terms of amenities, the plan had been considerably trimmed back and there were growing doubts as to its financial feasibility. Whimsicality and playful brick architecture – typical of the 1970s – had had their day, replaced in the 1980s by straightforward, rational subdivisions and a more functional architecture.

THE 'CAULIFLOWER' NEIGHBOURHOOD: FALSE HOPE OR SOURCE OF INSPIRATION?

ANITA BLOM

1. Walter Schwagenscheidt, diagram of residential area in the form of a cauliflower (*Baksteen* 1972 1, 3)

Over one third of the Netherlands' current housing stock – that is, over 2.7 million dwellings – was built in the period 1965-1990.[1] By the end of the 1960s the post-war housing crisis had still not been resolved either quantitatively or qualitatively and a further increase in building production was needed. At the beginning of the 1970s production stood at 150,000 dwellings per year. Housing was the driving force not just of the building industry, but of spatial development in the Netherlands as well. Compared with previous years, more housing was being built and, what is more, being built differently. Typical of this period were the so-called cauliflower neighbourhoods; loved by residents, maligned by architects and architectural historians.

Now the future of those housing developments is the subject of heated debate. In addition to issues of liveability and indispensable alterations, questions from the heritage perspective also need to be addressed. What is the significance of these housing estates for the history of urban development? What are their spatial, architectural and landscape qualities? How relevant are those qualities to today's housing crisis? And what can we learn from the then prevailing ambitions and ideals of renewal with respect to community building and participation?

In order to answer these questions, it is necessary to take a look at social, cultural and economic developments in the Netherlands during these years. In this period, more than ever before, architecture, spatial development and landscape architecture were heavily influenced by societal events. The greatest renewal came not from developments within and debates about the disciplines themselves, but from changes taking place in society. The dull conventionality of the early post-war years came to an end. Leaders and administrators of various social and religious political blocks were finding it increasingly difficult to bridge differences of opinion, a necessary precondition for stable governance. Baby boomers were no longer satisfied by their parents' certainties.

A DIFFERENT PERSPECTIVE ON LIVING

Thanks to the growing prosperity, people had a lot more money to spend. They were able and willing to spend more on their home and living environment, but they also wanted greater say in the matter. Towards the end of the 1960s opposition to the government's purely quantitative approach to housing construction grew among architects, public housing providers, administrators and citizens. There was resistance to large-scale housing estates and to living in massive high-rise apartment blocks. This was accompanied by a change in thinking about housing and about what kind of urban design principles should underpin it. The housing minister Wim Schut (1968-1971) abolished the subsidy for high-rise and used it for the construction of subsidized private dwellings.

Based on a population forecast of 21 million by the year 2000, a government policy document of 1966 (Tweede Nota over de Ruimtelijke Ordening) introduced a new spatial planning concept: clustered decentralization. In order to facilitate the growth of the big cities, villages and small towns on their peripheries were designated as 'growth centres'.[2] Examples include Zoetermeer, Spijkenisse, Purmerend, Nieuwegein and Helmond, as well as the Lelystad and Almere new towns. It was in these growth areas that the switch was made from large-scale, high-rise-dominated housing estates to small-scale neighbourhoods of ground-accessed dwellings with a garden.

This signified a different perception and use of the living environment. The resident population of young families with children and increased car ownership required a safer traffic structure.[3] This in turn led to the 'invention' of the home zone where pedestrians were prioritized over cars.[4] Car speeds were reduced still further by the use of obtuse-angled rather than rounded street corners. The blocks usually had staggered alignments, a mix of building heights and a variety of roof shapes. Together this made for a varied and lively streetscape with a new view at every corner. It also made for an area it was easy to get lost in; visitors were liable to find it confusing. The 'cauliflower' nickname arose from the similarity between the home zone street plan and a cross section of a cauliflower (fig. 1). The home zone was also intended as an informal meeting place for local residents. Encouraged by resident participation gatherings to use play areas, tables and chairs to give their home zones a distinct identity, they had no trouble telling the various home zones apart.[5] Amenities like shops and schools were no longer dispersed within the districts, as in the early post-war reconstruction districts, but concentrated between or on the edge of the neighbourhoods and districts, along with plenty of parking space (fig. 2). The earlier ideal of neighbourhoods with good amenities within walking distance was exchanged for the concept of a monofunctional and quiet residential area.

NEW QUALITIES

The subsidized private dwellings delivered an improvement in quality and, thanks to the advocacy of architects, there was also greater focus on architecture. One initiative that greatly influenced the design of housing and the residential environment was the Experimental Housing programme (1968-1980) established by the Ministry of Housing and Spatial Planning.[6] In 1968 the Stichting Nieuwe Woonvormen was founded in protest against the monotony and bureaucracy pervading housing construction.[7] It received a sympathetic hearing from Minister Schut who was himself by profession an urban planner. The aim of the Experimental Housing programme was to improve or renew the dwelling, the type of housing (for various target groups) and the residential environment. Before long pressing challenges like densification, flexible dwellings and urban regeneration were added to the programme. Schut's objective was to provide inspiration to market operators and local governments. The programme also helped draw attention to new themes like resident participation. The experimental dwellings in Lunetten in Utrecht and Molenvliet near Papendrecht, both housing schemes designed by Frans van

2. Ton Alberts, De Eglantier shopping centre in Apeldoorn with extension by AGS Architects (photo by author)

der Werf, are typical examples of participation and flexibility. Piet Blom's cube dwellings were inspiring owing to their unconventional design.

As appreciation for the aesthetic and history of the historical city grew, so too did interest in the existing built environment. Plans for new residential developments incorporated existing historical elements and spatial structures. For example, in De Geer, in the growth centre municipality of Houten, old agricultural buildings, existing greenery and country lanes were incorporated in order to reinforce the area's unique character. Such respect for the past was in stark contrast to the early post-war housing developments where the past was usually erased by a layer of fill sand.

SIGNIFICANCE OF POST 65 HOUSING ESTATES

Post 65 home zone residential areas were characterized by the small scale of the component parts and by the diversified streetscape of staggered, varied facades and rooftops (fig. 3).[8] The layout of new housing developments was no longer defined by clear, mainly orthogonal road structures, and the repetition of housing blocks. The first examples of home zone estates in the Netherlands were Angelslo and Emmerhout in Emmen, both designed by the urban planner Niek de Boer. In *The Critical Seventies. Architecture and Urban Planning in the Netherlands,* Aaron Betsky, the then director of the Netherlands Architecture Institute, wrote that the essence of Dutch architecture in the 1970s was consensus and community. The home zone was in effect a revival of rural tradition in an urban context.[9] But despite the supposed sociological underpinning, the concept was wholly attributable

to the designers. According to the social geographer Ivan Nio, there were no sociological theories about the home zone circulating at that time because there had been no direct contact between the human sciences the design disciplines since the former's critique of high-rise.[10] As such, the home zone was primarily the product of the give and take between designer and residents.

The concept of the home zone as the basis for neighbourhoods and districts proved extremely successful in the Netherlands. Nonetheless the urban planning concept's popularity was short lived. Criticism of the 'frumpishness' of home zone architecture from Carel Weeber among others, the 1979 oil crisis and subsequent economic crisis, and the revaluation of the city and urban culture later in the 1980s, all contributed to the demise of the home zone as the guiding design principle.[11] Subsequent new districts reverted to a clear and above all simple hierarchical structure, and a clear separation between private and public.

Yet even today residents continue to hold the neighbourhoods in high regard.[12] Equally notable is the appreciation among young families, whose parents often grew up a cauliflower district or home zone estate. A recent survey of the Experimental Housing programme of the years 1968-1980 revealed that all 64 realized projects still exist.[13] Most were in reasonable to good condition and once again the residents' regard for their dwelling and living environment was often high. However, increased car ownership had resulted in more of the (semi-)public space being paved than in the original plan. Some projects where participation had been an important design premise, such the Kasbah in Hengelo, The Centraal Wonenproject de Wandelmeent in Hilversum and the Vier Vierkanten in Alkmaar, still had an active residents' organization.

FOCUS ON THE FUTURE

Home zone estates continued to be built up until the late 1990s in urban developments like Ypenburg and Leidschenveen in The Hague, Assendelft-Noord in

3. Benno Stegeman, cupola dwellings in Meerzicht in Zoetermeer (photo by author)

4. Onix Architecten, veranda dwelling in Almere Buiten (photo François Hendrickx)

Zaanstad, Kern and Zanen in Alphen aan den Rijn, Leidsche Rijn in Utrecht and Oosterheem in Zoetermeer. The Veranda Homes in Almere (Onix architects) and the Scherf 13 estate in Leidsche Rijn (SeARCH) are further testimony to the home zone's viability as an urban planning concept (fig. 4). The aversion of architects and other professionals to the alleged dowdiness and musty ambience of the cauliflower neighbourhoods is a thing of the past. The concept's merits have been acknowledged and are providing inspiration in the design of new home zone developments. The layout of the (semi-)public space lends itself to resident participation.

In the coming years Post 65 cauliflower districts will undergo much needed redevelopment in relation to sustainability, climate change and energy transition, densification and dwelling typology. The residents' attachment to their neighbourhood should be the starting point. An active participation process has the potential to produce a constructive and broadly supported renewal scheme in well-regarded Post 65 districts. The De Pas neighbourhood in Winterswijk has been experimenting with this in recent years.

A new scheme for experimental housing that gives residents a say in the layout of both the dwelling and the living environment could generate additional support and greater involvement by residents in the construction and management of future residential districts. The results of the experimental housing projects of the 1968-1980 period can serve as an inspiring example.

NOTEN

1 At the end of 2022 the Netherlands had a little over 8 million dwellings, www.cbs.nl/nl-nl/cijfers/detail/82235NED.
2 The need for a 'spillover policy' to absorb the growth of the big cities had already been raised in a 1958 report about the development of the western part of the country (*De ontwikkeling van het Westen des Lands*). See also: A. Faludi and A. van der Valk, *De groeikernen als hoekstenen van de Nederlandse planningsdoctrine*, Assen/Maastricht 1990; M. Ubink and T. van der Steeg, *Bloemkoolwijken: analyse en perspectief*, Nijmegen 2011; A. Reijndorp, L. Bijlsma and I. Nio, *Atlas Nieuwe Steden*, Haarlem 2012; J.E. Abrahamse, *Opkomst en ontwikkeling van de bloemkoolwijk. Het ontwerp van woonwijken in Nederland en de zoektocht naar identiteit*, Amersfoort 2019.
3 The number of cars skyrocketed from 522,000 in 1960 to 3.2 million in 1973.
4 In housing areas constructed in 1975-1979, an average of 7% of the total road length was in home zones, in the period 1980-1984 that percentage was 10%. Since the 1990s it has dropped to 2%. Through traffic was catered for with ring roads around the neighbourhoods, www.crow.nl/downloads/pdf/verkeer-en-vervoer/wegontwerp/landelijke-data-analyse-verkenning-15-km-per-uur.aspx.
5 Thanks to the impoverishment of public space, the home zones no longer function as meeting places and that sense of identity has also declined over the years.
6 M. Barzilay, R. Ferwerda and A. Blom, *Experimentele woningbouw in Nederland 1968-1980. 64 gerealiseerde woonbeloften*, Rotterdam 2019.
7 The following architects were members of the working group: Dick Apon, Piet Blom, Willem Brinkman, Gerrit Boon, Aldo van Eyck, Max Risselada, Wiek Röling, Joop van Stigt, Jan Verhoeven, Nico Witstok and Carel Weeber.
8 In 1972 the trade journal *Baksteen* published the plan of the cauliflower neighbourhood, mistakenly ascribing it to Niek de Boer but, as a recent article explains, the plan was in fact by the German urban planner Walter Schwagenscheidt. https://decorrespondent.nl/11818/de-bloemkoolwijk-een-typisch-hollands-fenomeen-maar-de-bedenker-blijkt-een-duitser/1242628132350-a67fcd59.
9 A. Betsky, 'The In-Between Years: Dutch Architecture in the 1970s', in: M. de Vletter (ed.), *The Critical Seventies. Architecture and Urban Planning in the Netherlands* 1968-1982, Rotterdam 2004, 12-15.
10 I. Nio, 'Tussen collectiviteit en privacy', *DASH. Het woonerf leeft*, Rotterdam 2010, 4-17.
11 Weeber referred to 'Kleinschaligheid of ook wel Nieuwe Truttigheid genoemd' ['Small-scale development, otherwise known as New Frumpishness'; C. Weeber 'Geen architectuur zonder stedenbouw', in: H. de Haan and I. Haagsma, *Wie is er bang voor nieuwbouw... Confrontatie met Nederlandse architecten*, Amsterdam 1981, 227-236 previously published in *Intermediair* 1979.
12 www.gebiedsontwikkeling.nu/artikelen/onderzoek-een-bloemkoolwijk-is-zo-gek-nog-niet/.
13 See the survey report *Predicaat experimentele woningbouw 1968-1980*, by M. Barzilay, R. Ferwerda and A. Blom, Amersfoort 2018; Barzilay, Ferwerda and Blom 2019 (note 6). https://www.cultureelerfgoed.nl/publicaties/publicaties/2018/01/01/predicaat-experimentele-woningbouw-1968-1980.

A. BLOM MA worked for the Netherlands Cultural Heritage Agency as a specialist in post-war urban planning and coordinator of the Verkenning Post 65 project until 1 June 2023.

THE 'CAULIFLOWER' NEIGHBOURHOOD: FALSE HOPE OR SOURCE OF INSPIRATION

ANITA BLOM

Could the organically designed 'cauliflower' neighbourhoods of the 1970s hold the secret to solving both the current housing problem and the need for greater social cohesion at the local level? The pressing shortage of housing and the associated emphasis on quantity threatens to diminish the quality of the dwellings and living environment with something like the monotonous, repetitive block housing that characterized the late 1960s. In reaction to those spartan and large-scale districts, young architects were determined to prioritize the human scale. In 1966, with population numbers still soaring, a government spatial planning policy document introduced the idea of designated 'growth centres': villages and small towns close to the big cities that would absorb the growing population. An obvious way of retaining the character of these small centres lay in small-scale, low-rise developments. And that was exactly what young families were looking for. The 'cauliflower' street plan, consisting of a succession of 'home zones', was devised especially for these growth centres. Pedestrians had priority in the narrow, winding streets where there was also scope for children to play and neighbours to meet. Staggered frontages and a variety of roof shapes made for a lively and diverse streetscape. Disdained by professionals, these neighbourhoods are often still popular with the residents. Time perhaps to re-evaluate this housing concept?

LOVED BUT LITTLE KNOWN

LANDSCAPE ARCHITECTURE IN THE PERIOD 1965-1990

NATASCHA LENSVELT

Publications about Post 65 heritage pay relatively little attention to landscape architecture. Is that a reflection of the role of the discipline in the design commissions of the years 1965-1990? Or is it indicative of a blind spot on the part of current observers? This article looks at the work of garden and landscape architects in the Post 65 period, the context in which it came about, and how it is evaluated today.

THE POSITION OF THE LANDSCAPE ARCHITECT

Since the 1920s, garden and landscape architects have been part of design teams working on the layout of, among other things, upmarket residential areas, garden villages, new polders and land consolidation schemes. Even so, their contribution was often an elaboration, supplement or adjustment of the work of rural engineers, urban designers and architects. This changed in the 1970s.[1] To accommodate the rapid growth in industry, infrastructure and housing, an integrated approach was needed. Landscape architects were increasingly given a leading role in the redevelopment and expansion of cities and in the design of the landscape. Citizens, too, were given a greater say in these designs, in which nature, environment and car-free space for children at play were recurring themes. It became apparent that landscape architects possessed the will, the knowledge and the skills to integrate an ever-expanding programme and the ideas of users into the design process.

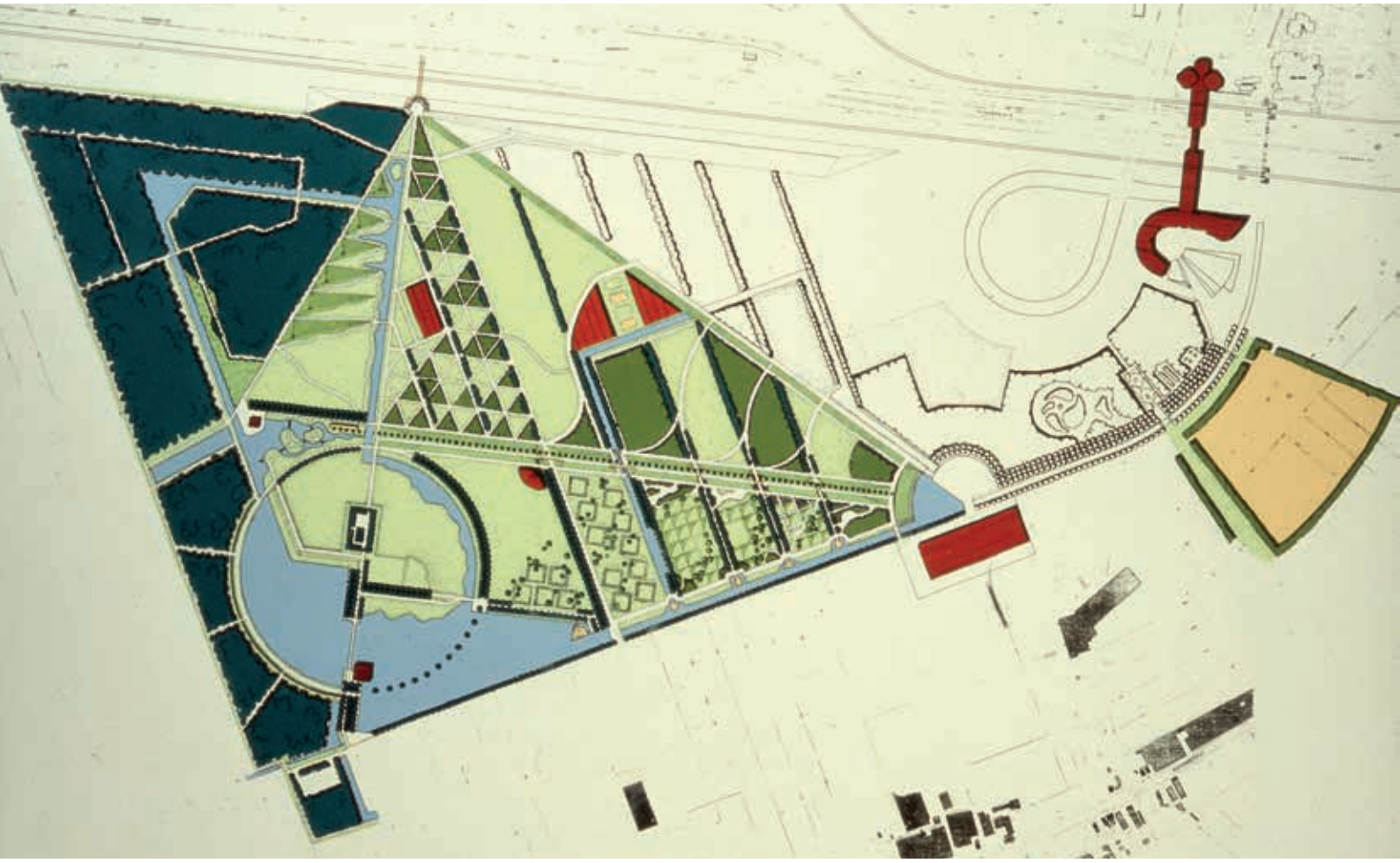
With the population forecast to increase to twenty million inhabitants by the year 2000, green space in residential areas came to be regarded as a basic amenity. Prompted by the Second and Third Spatial Planning policy documents (1966 and 1973-1983 respectively), administrators started looking for ways of accommodating it. In the cities planners wanted to use urban renewal projects to create room for housing with integrated green areas by relocating businesses to the urban periphery, cleaning up company grounds and demolishing substandard housing.[2] Cities and villages expanded on a grand scale, building new suburban residential areas that proved so successful that middle- and high-income earners increasingly deserted the city for a house with garden in green surroundings.[3]

◄ 1. Hexagons in Amstelpark during the Floriade, 1972 (Amsterdam City Archives)

In the new districts and designated growth centres small parks, sports fields, allotments, children's farms, and parks with natural gardens were created. Whereas post-war children who had outgrown the playground were still able to go adventuring in ditches and meadows beyond their neighbourhood, the children of the 1970s and '80s played in newly created parks in and around their living area. Foraging along ditches and winding streams was a thing of the past as a good many of them had been filled in to create additional hectares of agricultural land or channelized to facilitate the drainage of water.

Children were not alone in being increasingly shut out of the countryside. The Ruilverkavelingswet (Land Consolidation Act, 1954) paved the way for an increase in agricultural productivity in the process of which church paths and dirt tracks disappeared. A drastic separation of functions was the result. Because recreation, nature and the cultural landscape were under pressure, the 1985 Landinrichtingswet (Land Development Act) paid special attention to the problem. Terms like 'mixed-use development' or 'agriculture with ancillary functions' referred to a new policy in which landscape elements like wooded banks and pools with wetland vegetation were to be embedded in new developments.[4] But even this new law and the many associated policy documents failed to put an end to functional separation; economic growth took priority. The cultural landscape was turning into an unattractive and poorly accessible work landscape. Automobility was now a problem both during the week (commuters) and at weekends (recreation): the number of fatal traffic accidents skyrocketed and in good weather the roads leading to nature reserves were clogged with cars.[5]

Policymakers compensated recreationists for an inaccessible landscape by creating publicly accessible recreational areas at a new regional level of scale. These car-free green areas were a blend of park and landscape. The recreational area also acted as a green buffer preventing cities from conglomerating. Quite often the catalyst for such projects was provided by the sites of former sand quarries serving the construction industry. It worked both ways in such cases. The sand lake close to the city, preferably accessible by bicycle, relieved the pressure on nature conservation areas and the roads leading to them. Municipal governments collaborated on the realization of these types of



2. Michiel den Ruijter, design for the Floriade in Zoetermeer, 1992 (Stadsarchief Zoetermeer)

recreational areas in order to offer higher income earners an attractive living environment and so curtail their exodus from the city. Garden and landscape architects designed at all levels of scale, from company garden to urban design plan and from city park to land consolidation schemes. There was no shortage of work.

DESIGN

In the cities the large-scale Floriade exhibitions propagated the success of technological progress in the countryside. Glasshouse and ornamental plant cultivation expanded enormously in the1970s and '80s, even faster than the rest of the economy.[6] As a result, a lot of time and money could be spent on the design and floral decor of the Floriade sites.[7] Once again it was a win-win situation. The designers created a main structure that anticipated the site's post-Floriade function: that of city park, like the Amstelpark (Egbert Mos, 1972) and Gaasperpark (Pieter van Loon, 1982) in Amsterdam, or that of residential area, like Rokkeveen in Zoetemeer (Michiel den Ruijter, 1992).

Analysis of the various Floriade sites reveals a stylistic evolution. The design for the 1972 edition on the eastern outskirts of Amsterdam-Buitenveldert was still under the influence of post-war functionalism, with a clear main structure of straight paths and austere concrete bridges.[8] A more modern, structuralist detail was the cluster of hexagonal flower beds near the entrance (fig. 1). The hexagon was a popular geometric form that could be coupled together without creating a hierarchy. The home zone, with all its linked housing clusters, is a product of this same way of thinking. [9]

The Floriade in Amsterdam-Zuidoost, ten years later, had a more naturalistic layout with occasional geometric forms like the striking hedge circles. The paths were neither straight nor smoothly curved, but gently inflected. In the design for Zoetermeer in 1992 circles and diagonal lines were boldly superimposed on the grid of still visible polder strips (fig. 2). In 1983 Bureau B+B had made a similar statement in the Prinsenland city park in Rotterdam, where contrasting skewed squares were connected by a diagonal avenue.[10]

The Floriade was a hotspot of (urban) landscape architecture stylistic features. By the same token, many civil engineers, ecologists and designers – some university trained, others trained at the Boskoop gar-

3. Overview of Prinsenpark in the Prinsenland district, Rotterdam; at the top, the artwork *Vierkant eiland in de plas* by Frans de Wit, 1997 (Rotterdam City Archives)

4. Ecokathedraal in Mildam, photo probably taken in the late 1980s by Louis le Roy (Louis le Roy archive)

den and landscape design school – worked on the numerous recreational areas, the planning of the Flevopolder and the redevelopment of landscapes and nature reserves. They were employed by national and local governments, Staatsbosbeheer (state forestry service), and private concerns like Grontmij and Heidemij. The aforementioned stylistic features were also on show in these areas, with the exception of the geometric idiom.

In *De paradijsmethode* (2016), Imke van Hellemondt described how landscape architects from Wageningen and Delft universities, Staatsbosbeheer and a few private agencies developed analytical methods and concepts that would supposedly produce the best possible design.[11] In her view, this 'paradise method' proved ineffective.[12] It failed to resolve design dilemmas with respect to nature or culture and history or modernity. But whether it was the result of those discussions or not, the existing landscape (history, culture) was more frequently, and to a greater degree than in the past, incorporated into the design. Modern buildings or infrastructure were now allowed to be visible instead of being hidden away in vegetation. The main task of landscape design in that time of rapid change was to provide a framework of avenues, woods, water and roads, into which buildings, infrastructure and other elements could be fitted, even after the completion.

CONCERN ABOUT NATURE AND THE ENVIRONMENT

Revelations about the consequences of the agricultural use of the insecticide DDT (death of apex predators like birds of prey), about the pollution of streams and rivers, about acid rain and the extinction of animal species ignited citizen activism. Volunteers were instrumental in the success of the Instituut voor Natuurbeschermingseducatie (Institute for Nature Conservancy Education, IVN), and in the 1970s nature conservancy organizations proliferated. Books about natural gardens and plant communities by the ecologists Ger Londo, Chris van Leeuwen and Victor Westhoff were widely read.[13] Early twentieth-century plant sociology evolved into vegetation science. Ecologists and designers incorporated that knowledge into garden and landscape designs by increasingly adapting plantings to the local biotope and by using indigenous plant materials. The Nijmegen University botanist Victor Westhoff argued that society should stop putting human beings above nature and instead regard them as part of nature.[14]

The artist Louis le Roy shared that conviction. His artworks – like the park along Kennedylaan in Heerenveen and the Ecokathedraal in Mildam – were created over time and with the help of local residents (fig. 4). In his 1973 book *Natuur uitschakelen, natuur inschakelen*, Le Roy discussed the environmental problems we are still contending with today.[15] In the magazine *Plan* he wrote about his ideas and his work in articles aimed at fellow professionals (architects, planners and artists).[16] Since the 1970s, residents and artists have been busy depositing, stacking and planting in dozens of gardens and parks across the Netherlands.[17] Even today many of those nature-rich areas continue to be maintained by working groups of residents.

INADEQUATE APPRECIATION

Parks have become part of the collective consciousness thanks to the major events that have been held there. For three days in 1970, for example, the Kralingse Bos played host to the *Holland Pop Festival*. Ten thousand visitors, some stripped to the waist, smoked their first joint there while listening to music beside the waters of the Kralingse Plas (1936). This was the beginning of a tradition of holding pop festivals in city parks, such as the Bevrijdingspop in the Haarlemmerhout in Haarlem from 1980, and Parkpop in The Hague's Zuiderpark from 1981.[18] Parks have also provided a venue for demonstrations. The largest ever in the Netherlands, the anti-nuclear weapons demonstration of October 1983, saw 550,000 participants

spread across the Malieveld and Zuiderpark in The Hague.

Although green space can count on being well known and appreciated by residents, this is not reflected in recent inventory reports of Post 65 heritage in the big cities. They list many buildings but few gardens, parks or other green structures.[19] The Hague for example selected one hundred objects, not one of which was a green area.[20] This is remarkable in the city where Bureau B+B contributed to a redevelopment plan for the city centre (1987) and wrote a public space proposal (*De kern gezond*).[21]

In the Post 65 inventory that the Oud Utrecht working group conducted for the city of Utrecht, the only green area included – as an aside – was the one around the former provincial government offices.[22] We read, not under the heading 'Architect' but under 'Other remarks': 'Also worthwhile, the garden design by garden architects N. van der Vliet and P.A.M. Buys'. How is it possible for garden architect Pieter Buys, with his long track record and as founder of today's MTD practice, to end up as an afterthought and for his partner Bob van der Vliet to be misnamed, while their landscaping around that building was crucial to its appearance? Interesting Utrecht parks like Bloeyendael and Beatrixpark (both by Hans Pemmelaar) and Shanghaipark (artist Hans van Lunteren and others) are not mentioned in the report, even though the last had been nominated for listed status in 2016 by the very same working group.[23]

The inventory carried out by the Architectuur Instituut Rotterdam in 2009 can be digitally added to by the city council and citizens.[24] Private gardens are not evaluated (see the locally listed Teng bungalow), but the Ommoord neighbourhood garden (Louis le Roy with volunteers) and Wollefoppenpark (Bureau B+B), both typical of the Post 65 period, are (fig. 5). The inventory comprises objects and structures up to 1984, so it remains to be seen whether the high-profile but later altered Museumpark (Yves Brunier and OMA) will end up on the register.

The inventories drawn up by the 'growth areas' are much more complete. Zoetemeer included gardens, streets and public green space.[25] Purmerend's cultural-historical survey took a spatial design approach, which saw watercourses, sports fields, allotments and courtyard gardens included.[26] The city of Almere invited both experts and the public to nominate objects and gave green areas a fully-fledged position within the 'green-blue' theme.[27] Finally, the green

5. Wijktuin Ommoord in Rotterdam, photo Ary Groeneveld 1973 (Rotterdam City Archives)

6. A crowded beach beside the Henschotermeer recreational lake in Woudenberg, 1985 (The Utrecht Archives)

structure in Houten, in the province of Utrecht, that puts slow traffic in the heart of the city and directs cars to the ring road, enjoys national, even international fame.[28] In the heritage policy drawn up by the Houten municipal council in 2023, the central Post 65 bicycle and walking paths are incorporated in a park-like setting.[29]

METHODS

Why is it that green heritage is still often missing from these inventories? Is it related to the sectorial approach to heritage? Maybe the period in which the compilers of those inventories were trained plays a role, namely before the emergence of broad, more integrated courses like heritage studies and landscape history.[30] Whatever the case, publications by landscape architects and landscape historians are failing to reach architectural historians. One way of increasing appreciation for gardens, parks and landscapes would be to bring theory development in landscape and architectural history and landscape architecture together.

In *Nederlandse landschapsarchitectuur* (1993), Dirk Sijmons distinguished three design strategies.[31] The first is the focus on the fragment, which spelled the end of grand narratives and ideology-driven design. This approach, which is particularly prevalent in cities, might be called postmodern and is in tune with West 8 designs, like Schouwburgplein in Rotterdam (1993). The imitation dike in the Wollefoppenpark can also be seen as a playful fragmentation of reality.

The second, conservative, strategy is one of fitting in, adapting to the context, and historicization. It can be found in the reconstructed and historicized gardens of the 1970s and '80s, like Het Loo Palace by J.B. van Asbeck and the Havixhorst estate by Buro Hollema. On a larger scale we find historicized elements in recreational areas (Het Twiske by Mariska Pemmelaar), in attempts to conceal modernity (mega farms, infrastructure) with vegetation, and perhaps also in stream restoration projects.

The third strategy identified by Sijmons is the previously mentioned framework concept in which high- and low-dynamic functions can be accommodated. A well-known example is Plan Ooievaar, a vision for the re-development of rivers. One of the first projects carried out was the Blauwe Kamer near Rhenen where the summer dike was cut to allow a dynamic nature area to spring up along the bank.

Sijmon's trio of strategies can help us to categorize and evaluate the large number of multiform projects. In addition to these strategies and the previously mentioned stylistic features, it is possible to distinguish societal and cultural-historical values. Recurrent Post 65 themes are ecology, environment, emancipation, freedom, mass culture and prosperity. The description of those themes in relation to green heritage can serve to call attention to lesser-known types of landscape such as bicycle networks in nature areas or redeveloped landfill sites.[32]

CONSERVATION AND DEVELOPMENT

Evaluation of green areas prior to redevelopment is not yet standard practice. Take the Henschotermeer recreational area near Woudenberg. It was laid out in the late 1930s beside a lake created by sand mining operations serving the line of defensive works. After World War II the area was transformed into a (summer) recreation destination, and in 1972, owing to the large numbers of visitors, the lake was significantly enlarged by Heidemij and the park was redesigned.[33] The new design – the maker's name is unknown – strengthened the existing qualities, creating the impression of a lovely lake in the woods. Visitors walked, swam or simply relaxed there and felt in tune with nature (fig. 6). Originally, the government had leased the lake from Den Treek estate via Recreatie Midden-Nederland, which also ran the facilities. But in 2018 Henschotermeer was privatized, and a fence was erected around the park. Since then an entrance fee has been charged for a previously public amenity and plans have been presented for the construction of holiday accommodation and other facilities in the green surroundings. Concerned local residents for whom the natural landscape and free access were of prime importance campaigned against the plans in 2022.[34]

Recreation areas are all too often overlooked in spatial policy. Provincial governments are interested in visitor numbers, but cultural-historical and (potential) natural values are insufficiently appreciated and enshrined.[35] If the cultural-historical, utility and natural values of Henschotermeer had been analysed before it was sold, it is possible that a future scenario closer to the original intentions could have been developed: in summer a public swimming spot with minimal built facilities, in winter a nature-rich hiking area.

Right now the Netherlands is facing unprecedented demands for space for agriculture, housing, nature and the environment. One possible solution is to reduce the separation between residential, work and recreational landscapes. Parks, neighbourhood green space and recreational areas will need to be increasingly deployed to strengthen biodiversity, improve water quality and raise the groundwater level.[36] These functions are relatively easy to integrate provided new management measures or redevelopment are preceded by analysis and evaluation.

As we have seen, Post 65 garden and landscape architects bridged the city–countryside divide. They worked at all levels of scale from private garden to industrial estate and managed to integrate a wide range of functions into a spatially coherent design using their unique analysis and design methods. Their substantial and interesting production merits greater attention in inventory and evaluation studies. To get an accurate picture of Post 65 green heritage, the heritage world could do worse than to emulate the integrated approach of landscape architects.

NOTEN

1 R. de Visser, *Een halve eeuw landschapsbouw. Het landschap van de landinrichting*, Wageningen 1997, 61-66.
2 Municipal councils were reimbursed for the costs via the 'Interim Saldoregeling'. E. van Es and L. Voerman, *Stadsvernieuwing in Stroomversnelling. Inventarisatie stadsvernieuwingsplannen Interim Saldo Regeling 1977-1985*, Amersfoort 2018, 14.
3 Tweede Nota over de Ruimtelijke Ordening (1965); the Derde Nota over de Ruimtelijke Ordening was published in three parts: Oriënteringsnota (1973), Verstedelijkingsnota (1977) and Nota Landelijke Gebieden (1977). For a succinct summary of the contents and effects of the policy documents, see F. Bruinsma and E. Koomen, *Ruimtelijke ordening in Nederland*, syllabus Vrije Universiteit Amsterdam 2018.
4 Nota Landelijke Gebieden 1977 (note 3).
5 The high point was reached in 1972 and 1973 with over 3,000 road deaths per year. SWOV factsheet, *Verkeersdoden in Nederland*, The Hague 2023.
6 C. van Bruchem (ed.), *Agrarische structuur, trends en beleid. Ontwikkelingen in Nederland vanaf 1950*, Wageningen, Report 2008/060.
7 The public wasn't just interested in horticulture but also in design. Designing one's own garden became a hobby, stimulated by illustrated magazines and books, and by garden tours by car or coach to England and elsewhere. This heralded the rise of the garden centre as the link between nursery and consumer.
8 H. Lörzing, *Van Bosplan tot Floriade. Nederlandse park- en landschapsontwerpen in de twintigste eeuw*, Rotterdam 1992, 44.
9 A.M. Backer (ed.), *De natuur bezworen*, Rotterdam 1998. Also consider the structuralist architecture of Herman Hertzberger.
10 The design was later amended; one square was omitted. Design drawings in R. Dettingmeijer, *Het Nieuwe Stadspark. Opvallende vormen en pakkende scenario's*, Rotterdam 1991, 105.
11 I. van Hellemondt, self-published

version of her PhD thesis *De paradijsmethode. Opvattingen over de modernisering van het landschap in de Nederlandse landschapsarchitectuur (1960-1980)*, 2016.

12 Nevertheless, the 'layer-based approach' is used today in design education and landscape research, landscape biography being the most recent product. The layer-based approach distinguishes at least three aspects of the landscape: abiotic (such as soil and water), biotic (plants and animals) and anthropogenic (human).

13 V. Westhoff and H. den Held, *Plantengemeenschappen in Nederland*, Zutphen 1969; V. Westhoff and C. van Leeuwen, *Wilde Planten, Duinen en zilte gronden (deel 1), 1970, Lage land (deel 2)*, 1972, *De hogere gronden (deel 3)* (1973); G. Londo, *Natuurtuinen en parken. Aanleg en onderhoud*, Zutphen 1977. *Wilde Planten* is said to have sold over 100,000 copies.

14 V. Westhoff, *Selectie uit het werk van Victor Westhoff*, Utrecht 2018.

15 L. le Roy, *Natuur uitschakelen, natuur inschakelen*, Deventer 1973.

16 L. le Roy in *Plan. Onafhankelijk maandblad voor ontwerp en omgeving*, 8 (1977) 1, 17-53, 12 (1981) 10, 41-47; 14 (1983) 7-8, 11-14.

17 Artists were regularly involved as garden designers in this period, especially in natural gardens like Shanghaipark in Utrecht. The same is true of projects that tend towards land art, like Krijn Giezen's Franeker Bos; Lörzing 1992 (note 8).

18 The number of events together with everyday use continues to increase, resulting in soil compaction and thus damage to parks.

19 Amsterdam has yet to publish a list, but it evidently gathers information on the period given that it has granted listed status to Gouden Leeuw and Groenhoven, two Bijlmermeer apartment towers from 1973-1975 along with the surrounding park, www.Post 65.nl/woontorens-bijlmer-monument, accessed 23 May 2023; and *Cultuurhistorische verkenning Gaasperplaspark*, 2016.

20 J. van Hoogdalem and B. Koopmans, *Post 65 architectuur in Den Haag 1965-1995*, The Hague 2019.

21 B+B, which was founded in 1977 by Ank Bleeker and Riek Bakker, who had both started out at stedenbouwkundig bureau Zandvoort, brought forth dozens of well-known landscape architects; M. Steenhuis, *Bureau B+B. Stedebouw en landschapsarchitectuur*, Rotterdam 2010.

22 B. Poortman et al., *Post 65 Selectie en waardestelling van jong erfgoed. Een inventarisatie*, July 2021.

23 www.oud-utrecht.nl/46-erfgoed/actueel/407-sjanghaipark-2, accessed 4 August 2023.

24 www.wakelet.com/@Post 65010, accessed 30 May 2023.

25 Neighbourhood exhibitions 'De gave stad', 2001-2003.

26 International New Town Institute, *Cultuurhistorische Verkenning van de naoorlogse uitbreidingswijken van Purmerend*, Rotterdam 2021.

27 It would be interesting to analyse the evaluation differences between experts and laypersons.

28 R. Derks, *Het Groen omarmd*, Wageningen 2013; M. Steenhuis, *Jan Kalff. Landschapsarchitect in de naoorlogse stedenbouw*, Wageningen 2004.

29 R. de Kok and H. Masselink-Duits, *De Houtense historie meer beleefbaar maken*, Houten 2022.

30 It is beyond the scope of this article to discuss a range of potential factors like 'plant-blindness' (an idea floated by J. Wandersee and E. Schussler in 1998) or our current focus on cost-effectiveness.

31 D. Sijmons, 'Pages Paysages Hollandaises', in: G. Smienk (ed.), *Nederlandse landschapsarchitectuur. Tussen traditie en experiment*, Amsterdam 1993, 55-65.

32 A bottom-up approach to link values or themes from the Post 65 period to the landscape architecture of that period; a variation of Erik de Jong's recognition of seventeenth- and eighteenth-century ideas in contemporary garden designs in *Natuur en kunst* (Amsterdam 1995).

33 Most of Heidemij's post-1950 project dossiers have been destroyed, according to K. Peeneman in *Heidemij. Gids voor de archieven*, Gelders 0915.1. The Utrechts Archief contains correspondence, budgets and a few technical drawings, no.1820-7.

34 www.rtvutrecht.nl/nieuws/3341178/demonstranten-willen-toekomst-henschotermeer-terug-op-de-politieke-agenda, accessed 4 August 2023.

35 Research into the historical and current role of the Recreational Amenities boards could yield useful information for a vision of the future for recreational areas.

36 In the city, functional overlap is achieved by opening cemeteries and allotment complexes to walkers, and by allowing urban farming in parks.

N. LENSVELT MA BSC works as a Gardens and parks advisor at the Cultural Heritage Agency. She studied Garden and Landscape Architecture and Modern Literature.

LOVED BUT LITTLE KNOWN

LANDSCAPE ARCHITECTURE IN THE PERIOD 1965-1990

NATASCHA LENSVELT

Post 65 garden and landscape architects bridged the town and country divide. They worked at various levels of scale and for all kinds of users: from private garden to industrial area and from urban design scheme to land consolidation. Using their analysis and design methods they succeeded in accommodating a wide range of functions in a spatially coherent design. Despite the extent and appeal of their production, current knowledge and appreciation of Post 65 green heritage lags behind that of the architectural heritage. This is evident from redevelopment plans for green areas and from recently delivered big-city inventory reports from which this type of heritage is largely absent. Knowledge of theory development in landscape architecture, landscape history and architectural history can help to generate greater appreciation for Post 65 green space. After all, Post 65 green heritage is not just of interest from a cultural-historical perspective. It can also contribute to the improvement of nature and the environment in a way that is in keeping with Post 65 ideas.

DESIGNING SOCIAL INTERACTION

THE ARCHITECTURAL COUPLE HENK THIEME AND BRITA THIEME-DOMELA NIEUWENHUIS

SANNE TILLEMA

‘You … need to remember that buildings will form people’s surroundings for a very long time,’ wrote the architect Henk Thieme in 1984.[1] Today, almost forty years later, the oeuvre of Henk and his professional and life partner Brita Thieme-Domela Nieuwenhuis is gradually being erased. The town hall in Haren has been pulled down and the Nij Ylostins residential centre in IJlst is threatened with demolition. The rural library in the province of Groningen is barely recognizable since its renovation, and the raw concrete of

▲ 1. Henk Thieme and Brita Thieme-Domela Nieuwenhuis with their dog Bobbie in Delft, 1992 (private Thieme family collection)

the Havenschap office in Delfzijl has lost much of its power thanks to over-zealous painting. The treatment of the buildings designed by Henk Thieme and Brita Thieme-Domela Nieuwenhuis is common to a lot of architecture from the Post 65 period. There's a saying in aesthetic control circles that 'Quality often only becomes apparent when it is no longer there or, conversely, when it is decidedly different.'[2] This article aims to describe the merits of Henk and Brita's body of work in order prevent yet more of their buildings from being compromised or, worse still, from disappearing.

Much has already been written about architecture in the Netherlands from the period 1965-1990. However, most of those publications focus on the Randstad urban region and the design practices based there. One exception is *Architect Jan Sterenberg and het wonen in de jaren '70* (2021), in which Michiel Kruidenier describes one of the biggest architectural practices in the post-war Netherlands. It was based in Ter Apel in the northernmost province of Groningen. The two best-known architects from the northern Netherlands have been the subject of monographs, namely *Gunnar Daan, architect* (1995) by Bernard Colenbrander and *Abe Bonnema, architect* (1998) by Marijke Martin. The only publication about Cor Kalfsbeek is the DAAD Cahier *Een zitkuil voor het dorp; Een toekomst voor de jaren '70 architectuur van Cor Kalfsbeek* (2016). A recent publication, *Bruut, Atlas van het brutalisme in Nederland* (2023) features a hundred examples of brutalist buildings, only six of which are from the three northern provinces.[3]

Still less has been published on women architects from the northern Netherlands in the Post 65 period, even though as Erica Smeets-Klokgieters has shown in her groundbreaking doctoral thesis '*Hulde aan onze kranige architecte!*' (2022), the number of practising women architects had already increased dramatically before 1945. In the monograph on Cor Kalfsbeek, the role of his wife, interior architect Sibylle Kalfsbeek, received little attention. More recently, several women received long overdue acknowledgement of their place in the history of Dutch architecture in *Vrouwen in architectuur* (2023). Present-day women designers are brought to public attention in the *Mevr. De Architect* column of the online magazine A.Zine.[4]

The architectural couple Hendrikus Pieter Thieme (1926-2020) and Brita Thieme-Domela Nieuwenhuis Nijegaard (1929-1995) were active from the 1950s to the turn of the century (fig. 1). From their office in Groningen and their home in Glimmen they collaborated on over two hundred designs for new buildings, renovations and restorations. To date, with the exception of a 1982 thesis, *Vrouwen in de (stede)bouw wat doen jullie nou?* (Women in architecture and urban design what are you doing now?), nothing has been written about the work of Brita Thieme-Domela Nieuwenhuis. This article attempts to redress that neglect. I introduce them in the order in which they presented themselves: Thieme – Thieme-Domela Nieuwenhuis architecten. This article documents part of the couple's body of work for the first time. The research is based on a list of projects, literature review and archival research, and conversations with the couple's children and with their most important former assistants.

The first part of this article introduces the couple and the practice. It focuses in particular on the collaboration between the two designers, because the precise division of tasks between architectural couples is not always clear. Henk and Brita were professionally active for half a century, largely during the Post 65 period, with the result that a number of developments and themes typical of that period are reflected in their work. This is not the place for a detailed portrait of this period or for a description of their oeuvre as a whole. Instead, I focus on a few highlights of the Thieme – Thieme-Domela Nieuwenhuis architecten oeuvre, presenting six case studies divided into two themes. There is also a brief discussion of the relation between societal developments and architecture. The first theme is a building type, namely the office. It underwent a substantial evolution in this period and that also finds expression in the couple's work. The second theme is a phenomenon that grew in importance in the Post 65 period: intensive collaboration with other designers. In the 1970s and '80s, Henk and Brita entered into several collaborations with colleagues. The benefits of such teamwork are described with reference to some of the results of these collaborations.

THE ARCHITECTURAL COUPLE

Henk Thieme was born in 1925 in Bussum. He studied architecture at the technical school in Amsterdam and then at the Institute of Technology (TH) in Delft. He gained practical experience in the office of the architect J.A. Lucas (1917-2005) in Voorburg, subsequently graduating under the supervision of Professor J.H. van den Broek (1989-1978) in 1957. During his studies Henk lived in lodgings on the Oude Delft and was a member of the Sint Jansburg Delft Student Corps. It was thanks to joint gatherings with other student corps that he met architecture student Brita.[5] Brita Domela Nieuwenhuis Nijegaard was born in 1929 in Groningen.[6] After finishing high school she wanted to study architecture, but her mother insisted that she should work for one year. If at the end of that year she still wanted to go to Delft, that was fine by her mother, even though many people advised against it.[7] In 1947, after a year as a home help in Sweden, she enrolled in

2. Thieme – Thieme-Domela Nieuwenhuis architecten, own house in Glimmen (1964), exterior (private Thieme family collection)

the architecture course at the TH in Delft. She had lodgings on the Korte Geer in Delft and was a member of the Women's Student Corps. Brita gained her practical experience with the architectural practice of E. van Linge (1895-1964) in Groningen and with Thunissen and Kranendonk in The Hague. In 1954 she passed her bachelor's exams and called a temporary halt to her studies.[8]

Henk and Brita married in 1954 and went to live in a villa on Jan Thijssenweg in Rijswijk, just south of The Hague. The first of their six children was born there. Even before they had graduated, they worked together on housing designs for Leidschendam. Their first project was signed only by Henk, but from the third design onwards both Henk and Brita the drawings bore both their names as the responsible architects. In 1959 the couple relocated to Groningen where they lived with relatives on Pelsterstraat in the city centre. Their office was located on the upper floor of the house.[9]

In 1964 Henk and Brita moved again, this time into a self-designed house on Nieuwe Kampsteeg in the village of Glimmen, built by the local building contractor, Groeneveld (figs. 2 and 3).[10] The two-storey dwelling is rectangular in plan and built of brick, with one entirely glazed facade to maximize solar access and views over the landscape. The very shallow-pitched roof, a recurrent feature in Henk and Brita's designs, was in this instance the product of compromise. They had originally wanted a copper roofing, but the associated roof shape with low gutter was not permitted by the zoning plan. The elevations and internal walls of fair-face brickwork, the dark-stained timber floorboards and the elements in fair-face concrete – all of which they would go on to use in other designs – lend the building a Scandinavian appearance. The house has an open plan, with all the living spaces oriented towards the landscape. From the dining room there is an unimpeded view into the sunken living room, the play area, the kitchen and the garden. Similar open plan arrangements crop up in other dwelling designs.[11]

3. Own house Glimmen, interior (private Thieme family collection)

4. Own house in Glimmen, bedroom and study with drawing table in front of window (private Thieme family collection)

Brita said of their designs: 'a building must be placed logically, naturally and functionallyin its surroundings. The building services, pipes etc. must be organically distributed within it. ("Like arteries, muscles etc. in the body.") A building should also look robust, not hastily "knocked together". The layout of the internal space must likewise be logical and clear.'[12]

THE COLLABORATION

In the early years Henk and Brita worked alone, but later they took on assistants in the form of a draughtsman, works supervisor and interior designer. It was not their intention to become a large practice and there were never more than four employees at any one time, sporadically supplemented by a trainee. The longest-serving assistants were Hans Groenewold (1970-1987) and Ch'ing Sze Liem (1973-1986).[13] There was no fixed division of tasks between Henk and Brita. Instead they took turns with the elaboration of the drawings, the specifications and the budget, and with the contacts with contractors. Final responsibility was always shared.[14] This even-handed collaborative practice was also reflected in how the office telephone was answered: 'Thieme – Thieme-Domela Nieuwenhuis architecten'; quite a mouthful, but both names were always cited.[15]

Drawings, too, were consistently signed by both Henk and Brita and there is no initialling, by them or by assistants. This makes it difficult to determine the author of individual designs. There was no competition between them, nor any need to propagate their own architectural views. They did have personal preferences, for example for certain types of commission. Restorations and renovations were carried out by Brita, who was interested in finding solutions for existing structures and who had an affinity with older buildings. In her designs she focused on providing good and practical floor plans with particular attention to light penetration. Henk had a clear preference for new-build projects and gravitated more towards aesthetics and design. He did not like ornamentation and preferred bright, hard colours, especially blue, and local materials like red Groningen brick.[16]

Just because their in-house collaboration was on an equal footing did not mean the architects were viewed as equals by the outside world. In 1982 Brita was interviewed about her experience working as a female civil engineer. She stated that as a woman architect she was constantly having to prove herself. Clients evidently assumed that she did no more 'than ... choose the colour of the curtains and suchlike'.[17] On building sites she was sometimes asked when the architect would arrive. To which she replied: 'the architect is standing in front of you!'.[18] In 1974 Brita took a year out from the practice to complete her architectural studies in Delft. She worked on her graduation project at the drawing table in the bedroom-cum-study (fig. 4).[19] Henceforth she was able to cite her engineering degree on all blueprints, just as Henk had been doing for years.

THE WORK

The Thieme and Thieme-Domela Nieuwenhuis practice's body of work comprises over two hundred projects designed between 1954 and 2003. There is a preponderance of new-build projects, in particular dwellings, offices and schools. Added to these are conversions and extensions of existing buildings and a few restorations and renovations. Most of the commissions came from within their own network: family, acquaintances, fellow architects and builders. The houses were often for private clients from the area around Groningen and Glimmen; some clients returned more than once for follow-up designs. Among the big clients for whom the practice worked on a regular basis were the Rijksgebouwendienst (Government Buildings Agency) and the PTT (Post and Telegraph Office).[20]

In addition to their work as architects Brita was active in local politics and Henk in education. From 1978, Brita represented the PvdA (Labour Party) on the Haren municipal council. Between 1988 and 1994 she was an alderman whose portfolio included Welfare and Housing. She entered politics because as an architect she had little influence over matters like zoning plans and urban development even though they played a pivotal role in her work; 'after a while I wanted some say over that as well'.[21] For a short while she also taught mathematics at a girls' secondary school, sat on the board of the Stichting Vrouwen Overleg Ruimtelijke Ordening en Volkshuisvesting (VOROV, a women's network on spatial planning and housing) and was a member of the Rooie Vrouwen, a feminist group within the PvdA.

Whereas Brita was keen to improve the guidelines within which she worked as an architect, Henk focused on the discipline itself and their fellow designers. In the 1960s and '70s he taught building materials science at the higher technical school in Groningen. At the Groningen Academy of Architecture he taught structural design, among other subjects. He was also active in both local and national organizations for architecture and architects (Groninger Vereniging tot Bevordering der Bouwkunst, VBB, and the Bond van Nederlandse Architecten, BNA). In the early 1980s he was chairman of the Groningen branch of the BNA (Royal Institute of Dutch Architects). He was also a member of the Groningen Rotary Club, which netted the practice a number of commissions. Finally, both Henk and Brita served for a short time on a design review committee.[22]

OFFICES

After housing, the practice's most common design commissions were for office buildings. The clients reflected various societal developments in the Post 65 period. There were new types of organizations, such as rural libraries, that required a specific kind of building. And there were existing organizations that were in need of new offices that met the changing demands of the time, such as the registry office of the provincial government or the social services department of the municipality of Groningen. Finally there were organizations that were expanding rapidly, like the Havenschap (port authority) in Delfzijl with the construction of the Eemshaven, or experiencing sweeping changes, like the NASK insurance company with its introduction of computers. These developments translated into a great many new office buildings. The three case studies, which are high points in the oeuvre of Thieme – Thieme Domela Nieuwenhuis architecten, also showcase several developments in Post 65 architecture.

CENTRAL RURAL LIBRARY, GRONINGEN (1964-1965)

One early design is the Central Rural Library in Groningen (fig. 5).[23] The concept of the rural library arose from the 'travelling libraries' in the form of boxes of books that were sent out to smaller, more remote places that did not have a library. In the 1960s the organization was centralized, leading to the construction of storehouses from which the books were dispatched. The library bus service also started in this period.[24]

The Central Rural Library was built on the outskirts of the city, on Laan Corpus den Hoorn. It was officially opened by the minister of culture, who praised its 'simple, but highly functional design'.[25] The central element was the storeroom for some 120,000 books; it was flanked on three sides by the dispatch area, offices and spaces where books could be repaired. The design was based on the distance between the storeroom book racks. This produced a fixed grid of five by five metres, which dictated the dimensions of the steel structure. The external walls consisted of dark pinewood elements and panels of toughened glass. Visible in the interior were timber-framed glazed partitions, walls of fair-face brickwork and pine-panelled ceilings.[26] The design, together with the materials used, lent the library a Scandinavian appearance.

Thanks to its modest height, the building was on a human scale. The low, box-shaped volume, the rational layout and the transparent shell are typical of modernist office buildings in the early Post 65 period. The rural library was a huge success, and the collection of books grew significantly in a short space of time. In 1974, a mere seven years after the opening, the building was already too small and was consequently sold.[27]

HAVENSCHAP OFFICE, DELFZIJL (1974)

One of the most striking buildings in Henk and Brita's oeuvre is the brutalist office building they designed in 1974 for the Delfzijl Port Authority (fig. 6).[28] It is one of the few projects that Brita is known to have regarded as her own design.[29] In 1972-1974 Henk and Brita worked on a new high-profile office building to house the port authority's senior management, administration and civil engineering department. During the 1960s and '70s the port authority developed new industrial and dock areas along the estuary of the River Eems. As a result the company was a catalyst for the growth of Delfzijl. The small fortified town underwent a huge development in this period and grew exponentially.

5. Central Rural Library in Groningen (1965), book repository shortly after the opening (*Jaarverslag 1965 Centrale Plattelandsbibliotheek voor de provincie Groningen*, Groningen 1965, 4)

6. Havenschap Delfzijl office building in Delfzijl (1974), photo 1983 (photo M.A. Douma, Groninger Archieven)

The office was built on Noordersingel, between the port, the new shopping centre and the railway line. Both the function and the surroundings informed the design, which according to Brita meant 'that the outcome could be none other than a square, distinctive block'.[30] This in turn determined the material, namely fair-face concrete. The client specifically requested a sheltered position and adequate parking spaces. The latter was resolved by raising the building above the ground, allowing space beneath for parking. The building's footprint was a ten by ten metre square based on a structural grid of 4.8 metres. A central core contained stairs, circulation space and wet services. The offices were arranged around this core on the upper floors.[31] On the outside, continuous balconies with concrete balustrades provided the requested buffer against noise and wind, while also doubling as an emergency escape route.

The Port Authority office can today be seen as one of the few examples of compelling brutalist architecture in the province of Groningen. Thanks to the sculptural use of the concrete structural skeleton, the building makes a grand gesture, typical of office architecture of the 1970s.

DISTRICT OFFICE OF THE NATIONAL POLICE, GRONINGEN (1987)

The architectural practice acquired national fame with the design of the district office for the national police in Groningen when it featured in the very first *Architecture in the Netherlands* yearbook (fig. 7).[32] In 1980-1981 Henk, Brita and Hans Groenewold designed the new offices for the Rijksgebouwendienst, the government buildings agency for whom they had done other work, including designing staff living quarters at the Veenhuizen penitentiary.[33]

The building, which was completed in 1987, was located in a new office park on the city outskirts, less

7. District Police Office in Groningen (1987) (photo Siem van 't Zet, Groninger Archieven)

than a kilometre from the Rural Library. The parcel of waterlogged peatland – 'onland' or waste land – was a major determinant of the construction and the architecture. Henk commented: 'I wanted the building to break free from the Onland. It should alight like a bird.'[34] The building was placed on angled pilotis above the water and could only be accessed via a single, central flight of stairs. This had the dual advantage of saving on the cost of site preparation and considerably simplifying security. Because of the waterlogged substratum the steel structure was made as light as possible and the elevations were clad with stainless steel, a material the couple had seen used in this way during a trip to Sweden. The floor plan is an optimized version of the classic cellular office, with offices opening onto long corridors. In addition to offices the building contained prison cells, interview rooms and ammunition store. There was a firing range on the upper floor rendered soundproof by a box-in-a-box construction.[35] The building was lauded for its exceptional design: 'The reflecting walls accentuate the slight weight of the construction and call up associations with the technical aspects of the police force. The low height of the building and the horizontal articulation temper a possible expression of power', according to the Yearbook.[36] The design review committee considered it a model plan: 'Clear symmetrical layout; reflection of surrounding colours makes it both contrasting and harmonious; varied in appearance: interesting structural design; a rarity.'[37]

COLLABORATING ARCHITECTS

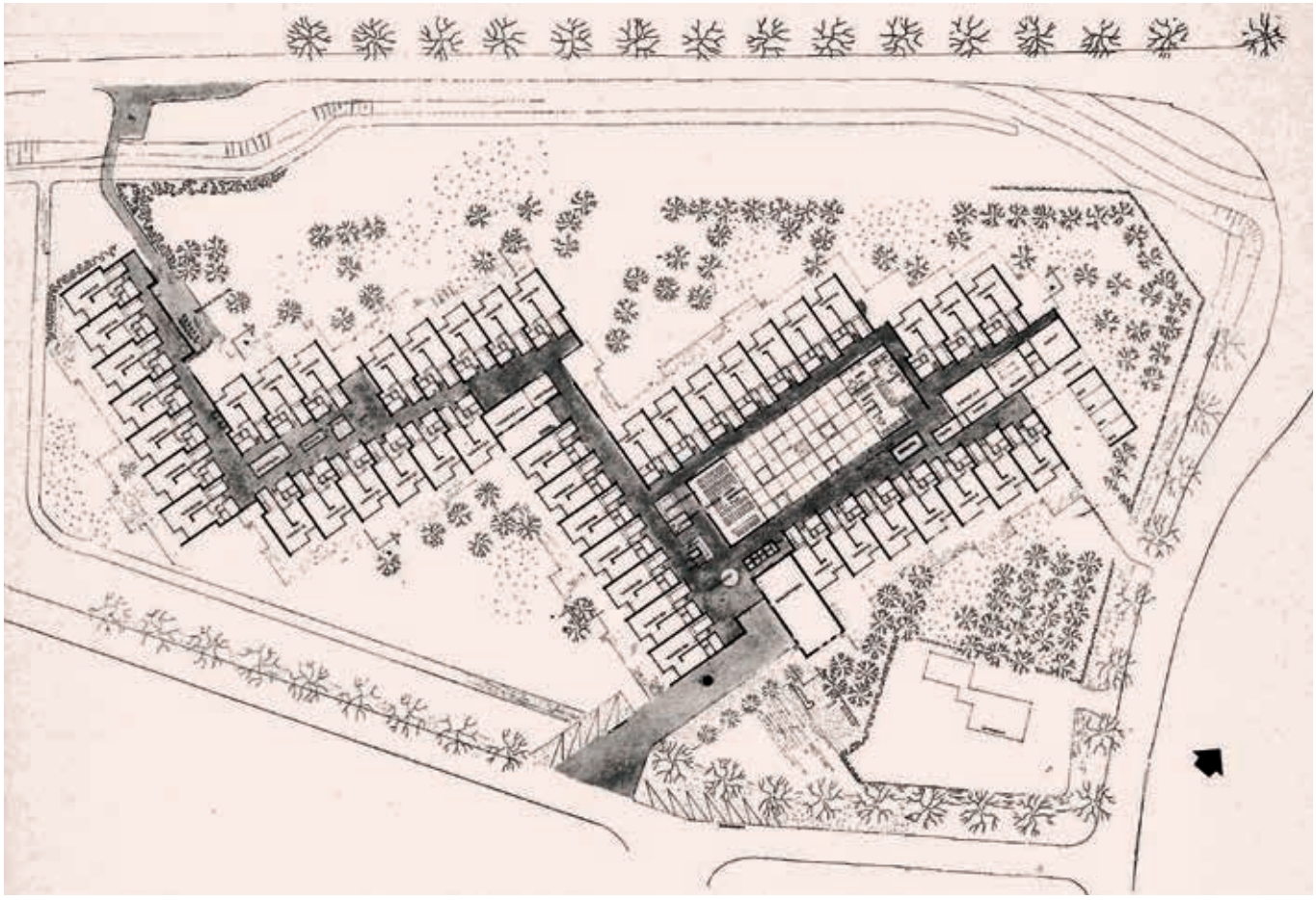
Henk and Brita's small architectural practice entered into various collaborations, often with regional practices. Increasingly complex building commissions called for collaboration between specialized designers. By the same token, collaboration offered relatively small practices the opportunity to work on major commissions, and also resulted in a greater variation in formal idiom. For clients it was an affordable means

of tapping into the combined knowledge and experience of several experts. Such collaborations are interesting for research into Post 65 architecture, because they bring to light a wider range of designers and reveal the connections between architects. The projects described below represent the most significant products of Henk and Brita's collaboration with other architects. In addition, in 1983 they were for a short while part of the Plan 3'82 combination along with the Groningen architectural practices Algera & v.d. Broek, and Olsmeyer, De Graaf.[38]

NIJ YLOSTINS, IJLST (1972)

For the construction of a new 'residential centre' in the Friesian town of IJlst, the Thiemes collaborated with the architectural and engineering practices of Nijenhuis & Ebbinge, Timmer, and Van Manen & Zwart, assisted by project architect E. B. Haag.[39] In 1969-1972, at the behest of the Stichting Bejaardenzorg IJlst en omstreken, the group worked on the design of Nij Ylostins (fig. 8). The complex is typical of the approach to housing the elderly in the 1970s. It began with a needs survey among local residents, regarded as the best means of getting people involved in building plans and much used during that decade. Following the survey the aforementioned design team was selected because together they had ample experience and the right expertise for this groundbreaking commission.[40] The complex consists of 59 residential units grouped along publicly accessible, covered 'internal streets'. Various amenities were incorporated into the residential centre, including a Groene Kruis centre, a library and a recreation room where contact between residents and locals was encouraged. To keep the cost of constructing this new living arrangement affordable, the designers opted for a limited number of spans and modular repetition. Varying the positioning of the modules enabled them to avoid the monotony associated with system construction. They also strove to create a varied spatial profile, a dynamic basic form and individually recognizable dwellings. The design was designated 'Experimental Housing' because it was largely open to the public and was intended for both the elderly and small families. This integration of target groups and functions was not standard practice in the 1970s; indeed, it was only made legally possible by the designation.[41] The residential centre was a huge success. In the end there was no mixing of target groups because the demand from elderly people in the area was so great. In 1974 an architecture critic

8. Nij Ylostins residential care home in IJlst (1972), site plan (municipality of Sudwest-Fryslân)



wrote of Nij Ylostins: 'Everything here is so confident, so genuine and so normal that criticism of details degenerates into nitpicking.'[42] While the collaboration between Nijenhuis & Ebbinge, Timmer, Van Manen & Zwart and Thieme remained a one-off, the housing concept was emulated in several towns.[43]

TOWN HALL, HAREN (1973-1975)

In the 1970s Henk embarked on a collaborative venture with architect Harm Nijenhuis (1926-1987) from Gieten and architect Henk Timmer (1913-1975) from Winschoten under the name 'Samenwerkende architekten- en ingenieursbureaus Nijenhuis en partners, Timmer, ir. Thieme b.v. Team voor ruimtelijke vormgeving BNA'. In 1970-1971, working out of a temporary office on Raadhuisplein in Haren, Harm and Henk (Thieme) designed a new town hall for Haren (fig. 9).[44] The town council's decision to commission a team of architects was motivated by a preference for reliable local designers following the recent withdrawal of the commission awarded to an Amsterdam architect. Added to which, 'some six architects would be providing their expertise, while the fee would be no higher than for a single architect'.[45]

9. Haren Town Hall (1973-1975), void with stairs beside pedestrian route through the building, photo from 2007 (photo Kris Roderburg, Rijksdienst voor het Cultureel Erfgoed)

10. Bekemaheerd housing estate in the Groningen district of Beijum (1980) in 1985 (photo K.A. Gaasendam, Groninger Archieven)

Achieving a sense of community and a human scale were all-important in the design; 'we tried to accommodate and give shape to the added dimension and social interaction'.[46] The building was located in the middle of the village and incorporated a pedestrian route that allowed for spontaneous encounters between residents and council officials. It was made up of office modules the dimensions of which were based on desk size. The exposed, modular concrete frame was infilled with brickwork. The partition walls were relocatable in order to maximize the flexibility of the internal layout. The possibility of a later extension was also explicitly taken into account.[47] After this project, the three architects collaborated on housing projects in Zuidlaren and Steenwijk. There the collaboration ended, probably due to incompatible personalities. The Haren town hall was not destined for a long life either. A mere 36 years after the opening the building was demolished because the political will to invest in its renovation and extension was lacking.[48] Brita had worked in the building for sixteen years as councillor and alderman.

BEIJUM VLEK III, GRONINGEN (1980)

Built in the 1970s on grasslands on the outskirts of Groningen, Beijum is a classic example of a Dutch 'cauliflower'-plan district. In order to satisfy the wishes of future residents as much as possible, the designers created a wealth of differentiation in street pattern and architecture as well as in the typology and price of dwellings. Also typical of this period was the departure from the prevailing zoning plan, widely regarded as too rigid. Urban design supervisor Coen Bekink (1922-1996) divided the plan area into thirteen subplans or 'sectors' that were then elaborated by different regional architectural firms.[49] Between 1976 and 1981 Thieme – Thieme-Domela Nieuwenhuis designed a gymnasium in Beijum I and two primary schools with community centres in sectors V and VII. For Beijum III they designed a total of 147 dwellings (fig. 10).[50] The urban design plan for this sector was drawn up by the municipal town planner, the Bekink architectural practice, and Henk and Brita's practice. Both practices subsequently designed housing schemes within this spatial framework. On Bekemaheerd and Kremersheerd streets, Henk and Brita each designed their own dwelling type: Brita back-to-back houses and Henk staggered housing. Brita's houses have a distinctive roof shape combining flat and pitched sections. It appears in other designs by their practice, in both housing and schools. Henk's houses have a staggered configuration that maximizes the

privacy and outdoor space enjoyed by each individual dwelling. This was something they had also done previously in housing schemes in Veenhuizen and the village of Winsum in Groningen. Henk and Brita seized on Beijum as an opportunity to apply their own individual design ideas in a co-designed section of this new residential district.

CONCLUSION

The architectural couple Henk Thieme and Brita Thieme-Domela Nieuwenhuis are relatively unknown, and their buildings have not always been well treated. Yet their body of work is of outstanding quality. This is evident, for example, in their use of materials, which was tailored to suit each individual commission. And also in the meticulous detailing and the functional floor plans, as can be seen in their own house. This first documentation of part of their oeuvre is intended to draw attention to their work in order to avoid it only attracting notice when it is no longer there.

The three office buildings designed by Thieme – Thieme Domela Nieuwenhuis architecten discussed here reflect an evolution in office architecture during the Post 65 period. The rural library was designed as a modernist flat box whose structure was determined by the storeroom book racks. In the 1970s, they made a brutalist grand gesture in the Eems estuary with their port authority office. The district police office exhibits high-tech architecture on stilts in waterlogged land on the outskirts of Groningen. Henk and Brita's collaborations with other architects from the northern Netherlands also produced some typical Post 65 architecture. The IJlst residential centre was designated 'Experimental Housing' because of its attempt to encourage contact between different target groups. Beijum is a classic example of a 'cauliflower' district in which maximum differentiation was achieved through the collaboration of several regional designers. Meanwhile, the Haren town hall, thanks to its demolition, has become emblematic of the present-day appraisal and treatment of buildings from the Post 65 era.

The collaboration between Henk Thieme and Brita Thieme-Domela Nieuwenhuis was exceptional. They were one another's equal when it came to designing, something that was highly unusual in the period in which they worked. Owing to the closeness of their collaboration it is mostly impossible to determine which of them made the definitive design decisions. The individual signatures of these separate designers merged into one; Henk and Brita were not *two* architects, but *one* architectural couple.

NOTEN

1 Royal Institute of Dutch Architects, Groningen division 1984-85, Groningen [1984]. I would like to thank the children of Henk and Brita Thieme with whom I have spoken for this study: Sven Thieme, Arne Thieme and Karen Thieme. Many thanks also to former associates of the practice, Hans Groenewold and Ch'ing Sze Liem, for our conversations, and to Johan van der Beek, one of Henk's former colleagues. Last but not least, I would like to thank architect Rob Hendriks who brought me into contact with the Thieme family.

2 W. Havik and H. Meindersma, *Geen top zonder berg*, Arnhem 1997, 39.

3 M. Kruidenier, *Architect Jan Sterenberg en het wonen in de jaren '70. Groeikernen en woonmilieus*, Rotterdam 2021; B. Colenbrander, *Gunnar Daan, architect*, Rotterdam 1995; M. Martin and J. Versnel, *Abe Bonnema, architect*, Rotterdam 1998; R. Hendriks (ed.), 'Een zitkuil voor het dorp. Een toekomst voor de jaren 70 architectuur van Cor Kalfsbeek', DAAD *Cahier 9* (2016); A. den Boer et al., *Bruut. Atlas van het brutalisme in Nederland*, Zwolle 2023.

4 E. Smeets-Klokgieters, *'Hulde aan onze kranige architecte!' De opkomst van de eerste vrouwelijke architecten van Nederland*, Rotterdam 2023; E. van Kessel and M. Kuperus, *Vrouwen in de (stede)bouw wat doen jullie nou? Over werk en werkervaringen van vrouwelijke bouwkundig ingenieurs in Nederland*, PhD thesis Art History VU Amsterdam 1982; C. Edens et al., *Vrouwen in architectuur*, Rotterdam 2023; www.a-zine.nl/category/mevrouw-de-architect/ (Mevr. De Architect column in online magazine A.Zine, accessed 29 May 2023).

5 Information kindly supplied by the Thieme children; J. van der Beek, 'Aantekeningen gesprek H. Thieme en J. van der Beek', 5 December 2019; *Delftsche studentenalmanak voor het jaar negentienhonderd een en vijftig*, Delft 1950, 415, 490.

6 Brita's full surname was Thieme-Domela Nieuwenhuis Nijegaard, but she herself always wrote her name as B. Thieme-Domela N.N. (Information kindly supplied by Karen Thieme). On drawings her name appears as 'B. Thieme-Domela Nieuwenhuis b.i.' (until 1974) or 'ir. B. Thieme-Domela Nieuwenhuis'. The brother of Brita's grandfather was the well-known clergyman and politician Ferdinand Domela Nieuwenhuis (1846-1919).

7 Van Kessel and Kuperus 1982 (note 4), 155.

8 Information kindly supplied by Karen Thieme; Van Kessel and Kuperus 1982 (note 4), 154-155; *Delftsche studentenalmanak 1950* (note 5). The Domela Nieuwenhuis Nijegaard family hailed originally from Denmark and still had immediate family members living in Denmark. Why Brita opted to work in Sweden rather than Denmark is unknown.

9 Information kindly supplied by the Thieme children; Architectural archives of the municipality of Leidschendam-Voorburg, dossier nos. 15120 and 95238, Prins Bernhardlaan 15-73 and 75-133 Leidschendam.

10 Private Thieme family archive, list of projects, Thieme family home: Nieuwe Kampsteeg 7, Glimmen, design Henk Thieme and Brita Thieme-Domela Nieuwenhuis, built 1964, builder: Bouwbedrijf Groeneveld BV of Glimmen.

11 Private Thieme family archive, drawings and photos. They often worked with the local Groenenveld construction company.

12 Van Kessel and Kuperus 1982 (note 4), 158.

13 Information kindly supplied by Hans

Groenewold and Ch'ing Sze Liem.

14 Van Kessel and Kuperus 1982 (note 4), 156. This was also intended to prevent them being played off against one another, a lesson learned from experience.

15 Conversation with Ch'ing Sze Liem, 22 April 2022.

16 Private Thieme family archive, drawings; information kindly supplied by the Thieme children, Hans Groenewold, Ch'ing Sze Liem and Johan van der Beek; Van Kessel and Kuperus 1982 (note 4), 156-158.

17 Van Kessel and Kuperus 1982 (note 4), 159.

18 Conversation with Karen Thieme, 11 October 2021.

19 Van Kessel and Kuperus 1982 (note 4), 157.

20 Private Thieme family archive, list of projects.

21 'Thieme deed het op eigen kracht', *Nieuwsblad van het Noorden*, 31 January 1994, 9.

22 Information kindly supplied by the Thieme children, Ch'ing Sze Liem, Hans Groenewold and Johan van der Beek; Bond 1984 (note 1), 1; Van Kessel and Kuperus 1982 (note 4), 156-158, 189; Groninger Archieven (GA), 1084 Provinciale Groningse Welstandszorg, 1928-1995, inv. no. 1.3, annual reports.

23 Private Thieme family archive, list of projects, Centrale Plattelandsbibliotheek voor de provincie Groningen: Laan Corpus den Hoorn 1 Groningen, design Thieme – Thieme-Domela Nieuwenhuis architecten, builder Ned. Aannemingsmaatschappij The Hague, designed c. 1963-1964, built 1964-1965.

24 'Minister Vrolijk opent centrale bibliotheek', *Nieuwsblad van het Noorden*, 1 July 1965, 11; 'Provinciale Bibliotheek krijgt rijdend magazijn', *Nieuwsblad van het Noorden*, 10 February 1968, 11.

25 Minister [Vrolijk] 1965 (note 24), 11.

26 H.P. Thieme and B. Thieme-Domela Nieuwenhuis, 'Bibliotheek te Groningen', *Bouw* 19 (1964) 34, 182; GA, 2537, Bouwdossiers dienst RO/EZ (1), 1878-1992, inv. no. 22688.1, Laan Corpus den Hoorn 1, 1962-1987.

27 P.L. de Vrieze, *Moderne bouwkunst in Groningen*, Groningen 1969, 8-9; 'Van Corpus den Hoorn naar Atoomweg. Bibliotheekcentrale wacht met smart op nieuw gebouw'', *Nieuwsblad van het Noorden*, 9 December 1972, 13; Annual report 1964 Centrale Plattelandsbibliotheek voor de provincie Groningen, Groningen 1964, 5.

28 Havenschap Delfzijl Offices: Noordersingel 1, Delfzijl, design Thieme – Thieme-Domela Nieuwenhuis architecten, designed c. 1971-1974, built 1974. Private Thieme family archive, list of projects.

29 Van Kessel and Kuperus 1982 (note 4), 157.

30 Van Kessel and Kuperus 1982 (note 4), 156.

31 W. Havik and A. Blonk, *Architectuurgids Provincie Groningen (1900-1994)*, Bedum 1994, 43; Van Kessel and Kuperus 1982 (note 4), 156; GA 698 Havenschap Delfzijl 1958-1986, inv. no. 311 'Bouw havenkantoor aan de Noordersingel, notitie Ch.C. van Elderen aan Leden Dagelijks Bestuur Havenschap', 24 April 1973, and correspondence between Ch.C. van Elderen and H.P. Thieme/J.J.C. Groenewold. The original plan was to use aluminium frames but owing to cost cutbacks, stained timber frames were used instead.

32 H. van Dijk (ed.), *Architectuur in Nederland. Jaarboek 1987/1988/Architecture in the Netherlands. Yearbook 1987/1988*, Deventer 1988, 61. Private Thieme family archive, list of projects, Districtsbureau Rijkspolitie Groningen: Schweitzerlaan 1, Groningen, designed by Thieme - Thieme-Domela Nieuwenhuis architecten, for the Rijksgebouwendienst (Government Buildings Agency; Groningen, Friesland, Drenthe division), designed 1980, built 1987, builder BAM, Wijn en Dekker, constructeur adviesbureau voor bouwtechniek bv, J.J.A. Beukema, J.H. Pestman.

33 Previous design commissions for the Rijksgebouwendienst included a police station in Grijpskerk and a sports hall plus director's and staff living quarters for the Veenhuizen penitentiary; private Thieme family archive, list of projects.

34 C. Ligtenberg, 'Zicht op... Bureau Rijkspolitie', *Nieuwsblad van het Noorden*, 27 July 1992, 7.

35 GA 1969 Building permit municipality of Groningen (3) 1965-1987; inv. no. 8404, Schweitzerlaan (municipality of Helpman O 807); granted to the Rijksgebouwendienst for, respectively, a district police office and the enlargement of the building plan, 1985-1986, construction drawings 1985 with placement list. Information kindly supplied by the Thieme children and Hans Groenewold.

36 Van Dijk 1988 (note 32), 61.

37 Commissie voor de Welstandszorg van de gemeente Groningen, *Voorbeeldplannen voor beeldende welstandszorg*, Groningen 1989, 45.

38 'Plan 3'82 architecten +ingenieurs', *Nieuwsblad van het Noorden*, 29 May 1982.

39 M. Barzilay, R. Ferwerda and A. Blom, *Predicaat experimentele woningbouw 1968-1980. Verkenning Post 65*, Amersfoort 2018. Private Thieme family archive, list of projects, Woonzorgcentrum Nij Ylostins: Ylostinslaan 1, IJlst, designed by the architectural and engineering practices Nijenhuis & Ebbinge, Timmer, Van Manen & Zwart, Henk Thieme, E.B. Haag, for the Stichting Bejaardenzorg IJlst en omstreken, designed 1969-1972, built 1972.

40 'Experimentele bejaardenhuisvesting te IJlst', *Bouw* 26 (1971) 16, 629-631; N. Mens and C. Wagenaar, *Architectuur van de ouderenhuisvesting. Bouwen voor wonen en zorg*, Rotterdam 2009, 110. Nijenhuis & Ebbinge had recently built homes for the elderly, Van Manen& Zwart's works included school buildings, Timmer had experience with both housing and school construction, and Thieme had considerable experience in housing, schools and offices.

41 Experimentele 1971 (note 40), 629-631; 'Experimentele woningbouw. Adviescommissie kent aan vier projecten predikaat toe', *Bouw* 25 (1970) 36, 137; 'Woonzorgcentrum IJlst', Bouw 25 (1970) 35, 1330; M. Barzilay, R. Ferwerda and A. Blom, *Experimentele woningbouw in Nederland 1968-1980*, Rotterdam 2019, 128; Mens and Wagenaar 2009 (note 40), 106-108.

42 M. Kruidenier, *Waardestelling Nij Ylostins, 'wooncentrum voor bejaarden'*, Nijmegen 2019, 10; K. Wiekart, 'Woonwijk voor bejaarden te IJlst', *NRC Handelsblad*, 1972. From: Kruidenier 2019.

43 'Verkoop-aanbesteding'' *Nieuwsblad van het Noorden*, 21 February 1973; Barzilay, Ferwerda and Blom 2019 (note 41), 128. A few years later Nijenhuis & Ebbinge did design a 'social services centre' in Smilde based on the same principles, but without the assistance of the other architects involved in the design of Nij Ylostins.

44 Private Thieme family archive, list of projects, Gemeentehuis Haren: Raadhuisplein Haren, design Harm Nijenhuis and Henk Thieme, coordinator T.G. Pater, landscape architect J. Vroom from Glimmen, interior architect Metz en Co. from Amsterdam, visual artist B.A. Vels ten Kate from Haren, contractor Lodewijk Geveke from Haren, structural engineers Adviesbureau Grabowsky en Poort from Groningen, designed 1970-1971, built 1973-1975, demolished 2011. H. Nijenhuis and H.P. Thieme, 'Raadhuis te Haren', *Bouw* 31 (1976) 21, 380.

45 'Nyenhuis en Thieme nieuwe architecten Harener raadhuis', *Nieuwsblad van het Noorden*, 16 July 1969. A few years earlier the Haren town hall design commission that had been awarded to the Amsterdam architect C.W. Schaling (1912-1972) was withdrawn on the grounds that he did not have the set-up required to be able to complete the commission. 'Ontslag architect van raadhuis in gesloten zitting', *Nieuwsblad van het Noorden*, 26 March 1969.

46 H. Nijenhuis and H.P. Thieme, 'Raadhuis te Haren', *Bouw* 31 (1976) 21, 380.

47 Havik and Blonk 1994 (note 31) 58; Nijenhuis and Thieme, 1976 (note 44), 380-382; Samenwerkende architekten- en ingenieursbureaus Nijenhuis en

partners, Timmer, ir. Thieme b.v. Team voor bouwkundige- en ruimtelijke vormgeving BNA, *Raadhuis Haren*, Haren s.a.

48 H.P. Thieme and H, Nijenhuis, 'Woningen te Steenwijk', *Bouw* 32 (1977) 26, 65-67; J.B.R. Dekker, 'Opinie: Sloopzucht en geldingsdrang in Haren. Noodzaak nieuw raadhuis twijfelachtig', *Dagblad van het Noorden*, 5 October 2005, 10; J. Schlimbach, 'Haren kiest plots voor bouw nieuw raadhuis. Gemeente laat jaren geplande verbouwing schieten', *Dagblad van het Noorden*, 30 September 2005, 11.

49 M. de Vletter, *De kritiese jaren zeventig. Architectuur en stedenbouw in Nederland 1968-1982/The Critical Seventies. Architecture and Urban Planning in the Netherlands 1968-1982*, Rotterdam 2004, 21; S. Vreeling, *Groningen kleurt rood. De rol van de Vereniging tot bevordering der bouwkunst in de discussie over de stadsontwikkeling van Groningen, 1883-2012*, Groningen 2013, 52-53.

50 Private Thieme family archive, list of projects, Woningen Beijum III: Bekemaheerd en Kremersheerd Groningen, designed by Thieme – Thieme-Domela Nieuwenhuis architecten for the City of Groningen and ABP, designed 1976, built 1980.

S. TILLEMA MA studied the history of architecture and urban planning at the University of Groningen. She is currently a heritage consultant with Libau in Groningen. In this capacity she is secretary and heritage consultant of the Advisory Committee on Environmental Quality for the municipalities of Drenthe.

DESIGNING SOCIAL INTERACTION

THE ARCHITECTURAL COUPLE HENK THIEME AND BRITA THIEME-DOMELA NIEUWENHUIS

SANNE TILLEMA

The architectural couple Hendrikus Pieter Thieme (1925-2020) and Brita Thieme-Domela Nieuwenhuis Nijegaard (1929-1995) were active from the 1950s up to the end of the twentieth century. From their office in Groningen and their home in the village of Glimmen they collaborated on over two hundred designs for new buildings, renovations and restorations. That legacy is slowly being erased as their buildings are demolished or radically altered, a fate it shares with a lot of architecture from the Post-65 period. This article draws attention to the quality of the output of Thieme–Thieme-Domela Nieuwenhuis architects in the hope of preventing still more of their buildings from being damaged or even vanishing altogether. It is the first time that some of these works have been documented. The study is based on a list of projects, literature and archival research, and conversations with former associates and the couple's children. Much has already been written about Dutch architecture from the period 1965-1990, but the focus of most of those publications is the Randstad urban region and the design practices based there. Still less is known about women architects from the northern Netherlands in the Post-65 period. With the exception of a 1982 thesis *Women in construction, what are you doing now?,* the work of Brita Thieme-Domela Nieuwenhuis has received little attention to date.

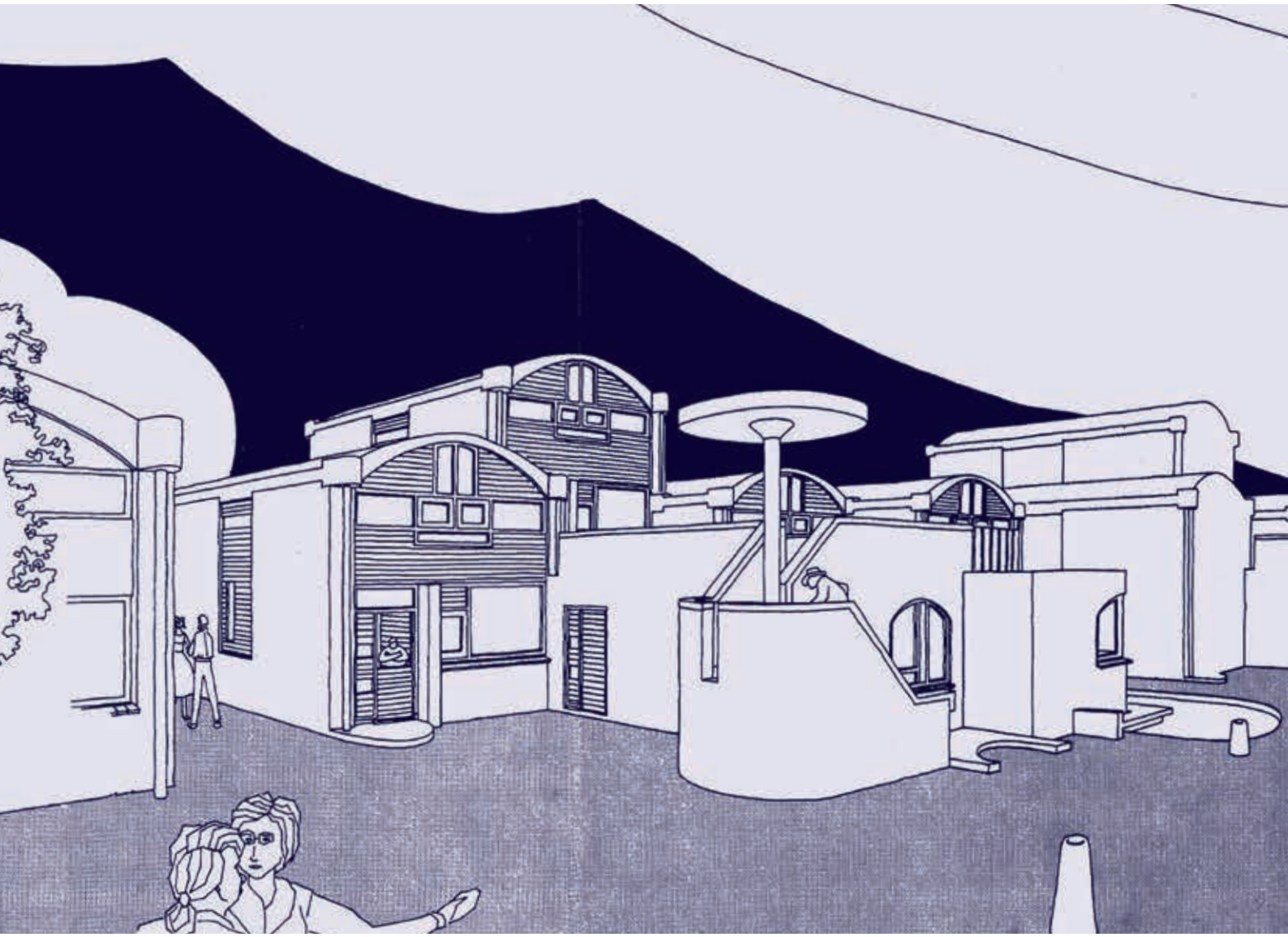
The first part of the article introduces the couple and their practice. The second part examines a number of highlights in the Thieme–Thieme-Domela Nieuwenhuis oeuvre, grouped according to two themes. The first theme is a building type, namely offices. The couple's work reflects a general development in office architecture in the Post-65 period. The second theme is a phenomenon that was growing in importance in those years: cooperation with other designers. In the 1970s and '80s, Henk and Brita worked together in several combinations with colleagues. The article describes the benefits and results.

The oeuvre of the architectural couple Henk Thieme and Brita Thieme-Domela Nieuwenhuis possesses a special quality that only becomes apparent when it is examined closely. Equally special is the way the two architects cooperated with each other. As designers they were equals, a situation that was by no means usual at the time. Owing to their close collaboration it is mostly impossible to distinguish which of them made the decisive design decisions. The individual signatures of these separate designers have merged into one; Henk and Brita were not two architects but one architectural couple.

‘DOING TOGETHER WHAT CAN BE DONE TOGETHER’

THE INTERRUPTED HISTORY OF CO-HOUSING IN THE NETHERLANDS

SANNE VAN DRENTH



‘Doing together what can be done together, because that’s when you enjoy it most.’ This catchphrase typifies the co-housing concept that emerged in the Netherlands in the 1970s and gave rise to over sixty projects between 1977 and 1991 (fig. 1).[1] Centraal Wonen (as co-housing was known in the Netherlands) is an intentional shared living arrangement in which each household has a self-contained house or residential unit while sharing communal facilities and spaces with other households.[2] The Centraal Wonen housing schemes were intended for a varied group of some 15 to 120 residents and most were realized as new-build projects. The initiators believed that this housing concept offered solutions to social issues like the inferior position of women and increasing loneliness that were not well served by the prevailing one-sided production of single-family houses and apartments. According to the co-housing philosophy, shared facilities would

▲ 1. Leo de Jonge and Pieter Weeda, Wandelmeent in Hilversum (*Bouw* 28 [1973] 49, 1474)

2. Computer room with wall hanging, in Centraal Wonen De Banier in Rotterdam (photo author 2021)

bolster the sense of community and the emancipation of deprived groups. Such idealism was in keeping with the mood for change that had emerged in the 1960s and continued to develop in the 1970s.

By the 1990s the Centraal Wonen as 'brand name' had faded into oblivion and was to all intents and purposes an episode in Dutch housing history that could be regarded as having run its course. However, alternative and shared living arrangements are currently enjoying an upsurge in interest, which puts the Centraal Wonen concept, so typical of the Post 65 period, in a different perspective. This article looks at the period in which Centraal Wonen emerged, the circumstances that gave rise to the concept, and the fully worked out manifestations of this living arrangement. It also investigates the nature of the alternative this new form of living sought to offer and how that was rendered in the first Centraal Wonen project. Lastly, it takes a brief look at the diminishing implementation of Centraal Wonen ideals in the 1980s.

THE NEW DYNAMISM OF THE POST-WAR GENERATION

The breeding ground for Centraal Wonen lay in the post-war period. The regeneration of large parts of the cities, the construction of a hundred thousand dwellings per year, and increasing automobility brought about drastic changes in the physical living environment of many Dutch citizens. The post-war reconstruction period saw the introduction of highly systematized building methods and a centrally coordinated housing policy. But the large-scale modernization of urban design and architecture and the industrialization of construction had their downside. In many cases, system building's repetitive modules and the modernist repetition of spatial design patterns resulted in an impoverished spatial quality. The new residential areas felt impersonal and unwelcoming; they were often too spread out and too monofunctional. But it was the demolition of large swathes of the existing urban fabric in the course of modernizing run-down inner city areas that provoked the greatest outrage. Canals were filled in, historical streets and neighbourhoods were demolished, and new thoroughfares were driven through centuries-old structures in the interests of traffic flow. This approach was promptly seen as a demonstration of the 'high-handedness of city authorities and the influence wielded by big business'.[3]

In *Een onvoltooid project* (An unfinished project) Michelle Provoost argued that: 'While planners in the 1960s set out the lines along which the Netherlands was supposed to develop with utter certainty, from

the perspective of the street society appeared to be anything but certain.'[4] A post-war generation that had grown up in the context of rising prosperity and secularization thought that individual development, emancipation and democratization were more important than conforming to society's traditional role patterns and unwavering articles of faith. Suddenly all manner of subcultures and socio-critical movements sprang up, populated by left-wing activists, as well as by 'hedonists and drop-outs'.[5] From their stance of social resistance they campaigned against empty properties, decay, demolition and speculation in the older city districts and neighbourhoods, and demanded a greater say in the planning process.[6] This call was answered by 'Keerpunt 1972' (Turning Point 1972), the joint election programme of three centre left political parties (PvdA, D'66 and PPR), and by the subsequent progressive Den Uyl government (1973-1977). Under the motto 'Distribution of knowledge, power and income' important core values were formulated, aimed at the post-war socially engaged generation.[7] The main political focus extended beyond the basic necessities of life and material prosperity to include emancipation, participation and democratization.[8] It was assumed that these social values would filter through into all facets of society.

ALTERNATIVES OFFERED BY THE ARCHITECTURAL PROFESSION

While politicians were busy exploring new social values in the 1970s, designers were pondering an architecture and urban design that would be better aligned with the needs of human beings.[9]

In 1959, Jaap Bakema and Aldo van Eyck had taken over the editorship of the architecture magazine *Forum*. Together with a few like-minded architects they criticized the sterile, bureaucratic version of functionalism and advocated merging architecture and urban planning in an integrated living environment geared to the welfare of human beings. Jaap Bakema wrote about architecture's function as a medium of identity – an aspect he felt was being overlooked in the bleak mass housing projects. For Van Eyck the chief problem was the absence of any direct contact between architect and end users. John Habraken came up with a way of bridging the gulf between the ideas of the architect and the needs of the occupants in his book *Supports: an Alternative to Mass Housing* (1961). He distinguished between the shell (the support) and the interior (the infill), in other words an architect-designed framework that the user could fill in for themselves.[10] The Stichting Architecten Research (SAR), co-founded by Habraken in 1964, explored this principle and the new responsibilities it entailed for the end user. Many architects at that time believed that involving future residents in the design process would result in greater freedom and flexibility and a more sustainable living environment, and that the resulting dwellings would be more in tune with the range of lifestyles, ages and preferences.

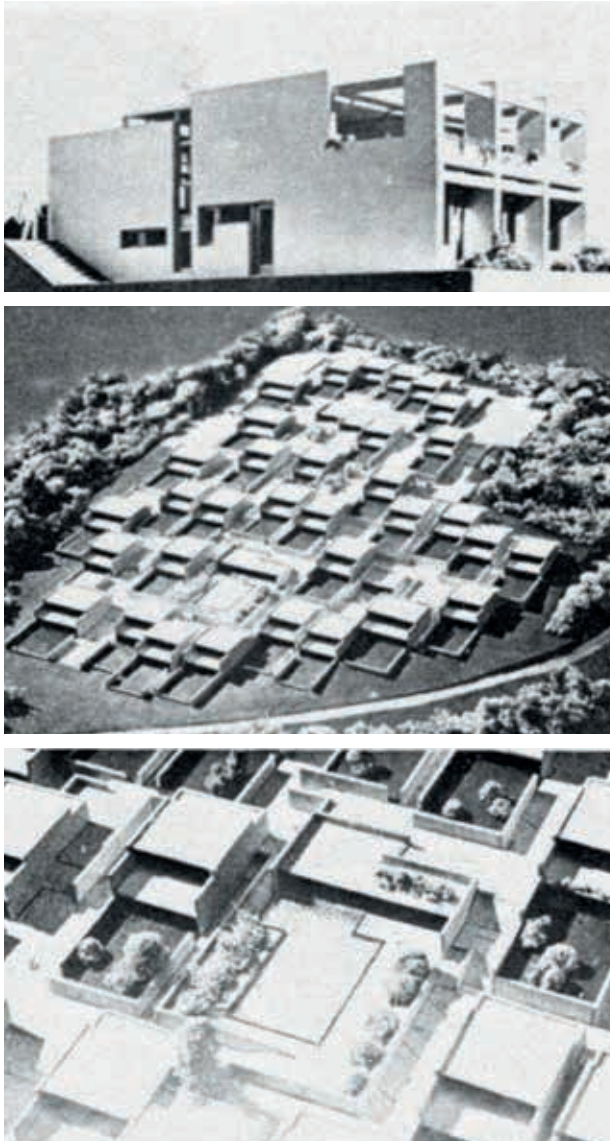
The ideas of the *Forum* group filtered into the built environment via the magazine and architectural courses without coalescing into a single common style. Early designs still featured a modern formal idiom but were more mindful of 'spontaneous encounters' and spatial hierarchies. In Dutch housing construction in the 1970s there was no shortage of experimental designs geared to promoting congeniality, introducing complexity into the streetscape and involving residents via consultation procedures.[11] In experimental housing we see recurrent themes like homeliness, contact and community achieved by way of (multi-level) low-rise, home zones and decked housing.

One of the directions taken by architecture and urban design would later come to be known as the 'small is beautiful movement'.[12] Districts were usually divided up into small neighbourhoods in which blocks of houses were variously arranged around home zones, traffic-calmed streets, courts and public green space. Staggered building lines, front gardens that merged with street spaces and small-scale greenery created in-between areas for casual encounters among residents. The architecture defined the streetscape and was characterized by brick-built dwellings with pitched roofs and an individual expression (fig. 1).

LONGING FOR A COMMUNITY

Meanwhile there was another development under way in which residents took matters into their own hands. In the Netherlands and other parts of northern Europe the ideal of a community beyond the traditional nuclear family was in vogue. One radical manifestation was the commune, a form of collective living that turns up in all cultures and all ages, but which in Europe experienced an upsurge in the wake of post-war reconstruction.[13] A post-war generation of young people rebelled against their parents' (middle-class) generation and against established social patterns, striving instead for change, participation and emancipation.[14] Inspired by themes like sustainability, spirituality and equality, they wanted to live together in a way that differed from existing family structures. Owing to the tight and lopsided housing market most embarked on their alternative form of living in existing buildings, where they experimented with the division of private and shared spaces.

From the 1970s onwards communes preferred to see themselves as 'residential groups'.[15] Interest in communes had waned, their networks had weakened and



3. Model of Skråplanet in Jonstrup in Denmark (M. Zeestraten, *Bouwfonds Informatiemap Centraal Wonen*, Bouwfonds Nederlandse Gemeenten, 1976)

it became increasingly difficult to make these kinds of projects viable.[16] New members sometimes had different ideas about the counterculture and communal living, fuelled in part by the negative perception of radical collectivization.[17] Communes experimented with sharing one another's partners and with an anti-authoritarian upbringing, and there was no taboo on drug use. In opposition to this were new insights into the importance of authority in raising children and in relations between the group and the individual. The internal disintegration of the commune movement sparked by a 'generational divide' and disagreement about the future direction of activism, resulted in a shift from 'outmoded' communes to other forms of shared living.[18]

Alongside the relatively unstructured relationships of the communes and residential groups living in converted (inner-city) buildings, communal housing projects of a more organized nature started to emerge. They arose from a desire to retain the family unit while 'opening' it up to a larger neighbourhood-wide social network and participating within the residential community, sometimes at neighbourhood or district level. Building from scratch made it possible to realize innovative shared housing ideas in buildings designed specifically for that purpose. In northern Europe in particular a number of communal housing projects with a social objective were built under a variety of names. The Danish *bofællesskab* ('living community') kick-started a movement that would later come to be known as 'co-housing' in the United States.[19] The Danish living communities also influenced the Dutch Centraal Wonen concept, in particular Skråplanet in Jonstrup (1963-1973) by the architect Jan Gudmand-Høyer (1946-2017), author of the 1968 manifesto 'The missing link between utopia and the dated one-family house' (fig. 3).[20] There was a lot of interest in his ideas on the 'integrated housing collective' where as well as a central community house, there were semi-private in-between spaces for use by small sub-groups.

CENTRAAL WONEN

In 1969 35-year-old Lies van den Donk-van Dooremaal of Nijmegen put a notice in the progressive news magazine *De Nieuwe Linie*: 'Who will design a housing collective, envisaged four to ten kilometres from a big city, with a central kitchen and dining room, a central laundry, a day nursery, study area, shared guest rooms and above or around them small private units for each family: a living room, a few bedrooms, a kitchenette, a shower and toilet?'[21] This advertisement marked the beginning of Centraal Wonen and was the impetus for ten design meetings in which the concept was worked out in greater detail. The idea eventually evolved into a wider vision for social reform.

Centraal Wonen's aims went beyond the creation of a strongly integrated group of residents. Its goals were several: it would reinforce the sense of community by restoring lost functions; increase citizens' influence over their immediate living environment; promote individual development; provide a stronger social safety net and mutual solidarity; promote female and male emancipation; and broaden and support the environment of the growing child. There were substantial spatial planning ambitions as well. Centraal Wonen would lead to greater variety in the urban landscape, ensure good facilities at neighbourhood level, enable greater housing density, make outdoor areas less of a 'no man's land' and align building and living with human cohabitation more than ever before. This last, it was explained, served to: '... relativize the supremacy of business principles on the one hand and

architectural-aesthetic principles on the other. What typifies human forms of cohabitation is their processual nature: the composition of a household changes, the people change, the relations between people change and with that the needs also change. Accordingly, a variety of possibilities for change are built in, not just in the communal areas and in the CW complex as a whole but in the individual dwellings as well.'[22]

In 1971, the interested parties set up the Landelijke Vereniging Centraal Wonen (National Centraal Wonen Association, LVCW). They received a grant to design an actual shared housing development via the Experimentele Woningbouw scheme of the Ministry of Cultural Affairs, Recreation and Social Work (CRM) and were supported by sociologists and welfare workers, who also assessed the feasibility of the design.[23] Centraal Wonen was loath to restrict itself to a single design, but the group of initiators felt that this was a realistic alternative to standard housing. In the event it was many years before the first housing complex was built, by which time the Dutch societal context was no longer the same.

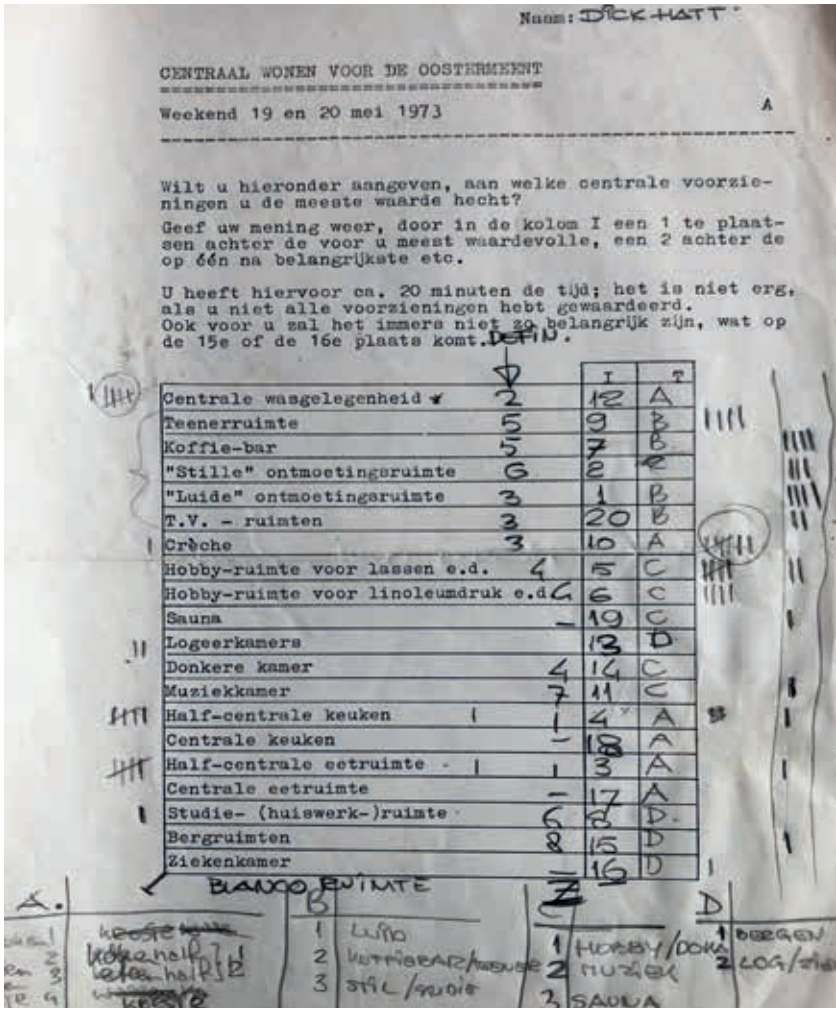
THE WANDELMEENT

The Wandelmeent in Hilversum is a key project for the Centraal Wonen movement because it represented the first attempt to give concrete form to their ideas. The first meeting about the Wandelmeent took place in 1973 and the project was completed in 1977. It began with an information evening in the Ons Huis community centre in Hilversum. Under the motto 'Doing together what can be done together', over sixty interested individuals united in the Vereniging Centraal Wonen Ooster Meent, worked to refine the details of the project. Later on there was a call for people 'who want to collaborate on … a form of living together that transcends the confines of the family'.[24] When it came to transcending those confines, residents were united on one point: it would not be a commune but rather a diverse and independent group of residents, including people normally shut out of the housing market. In the Wandelmeent every household would have a dwelling with their own kitchen, bathroom and front and back doors to ensure their privacy. Only then, it was thought, could residents be expected to make a voluntary contribution to the group.

Marian Verweij, who has lived in the Wandelmeent since the very beginning, stresses that there was no overarching ideology as there often was with communes. 'Residents are independent, have a sense of community that develops over the years, instead of there being a single idea and that people have to embrace that idea.'[25] But in reality the communal aspect was worked out well in advance of construction. Residents wanted a say in the selection of new residents and in the management of the communal spaces, and control over everyday decisions and joint activities.[26] The future residents of the Wandelmeent clearly had a social agenda: to set up a social living environment for a varied group of people, in effect a mini society.

The project architect was Pieter Weeda, a member of Leo de Jonge's architectural practice and a social housing specialist. During meetings and working weekends in youth hostels or on camping sites he catalogued people's housing preferences and ideals. In numerous surveys people were asked about the desired number of square metres per housing type, the optimal rent, what they were or were not willing to share, the layout of the kitchen and the evaluation of the group process (fig. 4). The design was made easier to understand by means of a large model consisting of relocatable blocks of wood (fig. 5). This visualization and communication of design choices and response to residents' criticisms was crucial to achieving agreement about the plan.[27]

4. Resident survey for the Wandelmeent in Hilversum, 1973 (Wandelmeent Archive)



Naam: DICK HATT

CENTRAAL WONEN VOOR DE OOSTERMEENT

Weekend 19 en 20 mei 1973 A

Wilt u hieronder aangeven, aan welke centrale voorzieningen u de meeste waarde hecht?
Geef uw mening weer, door in de kolom I een 1 te plaatsen achter de voor u meest waardevolle, een 2 achter de op één na belangrijkste etc.

U heeft hiervoor ca. 20 minuten de tijd; het is niet erg, als u niet alle voorzieningen hebt gewaardeerd.
Ook voor u zal het immers niet zo belangrijk zijn, wat op de 15e of de 16e plaats komt. DANK U.

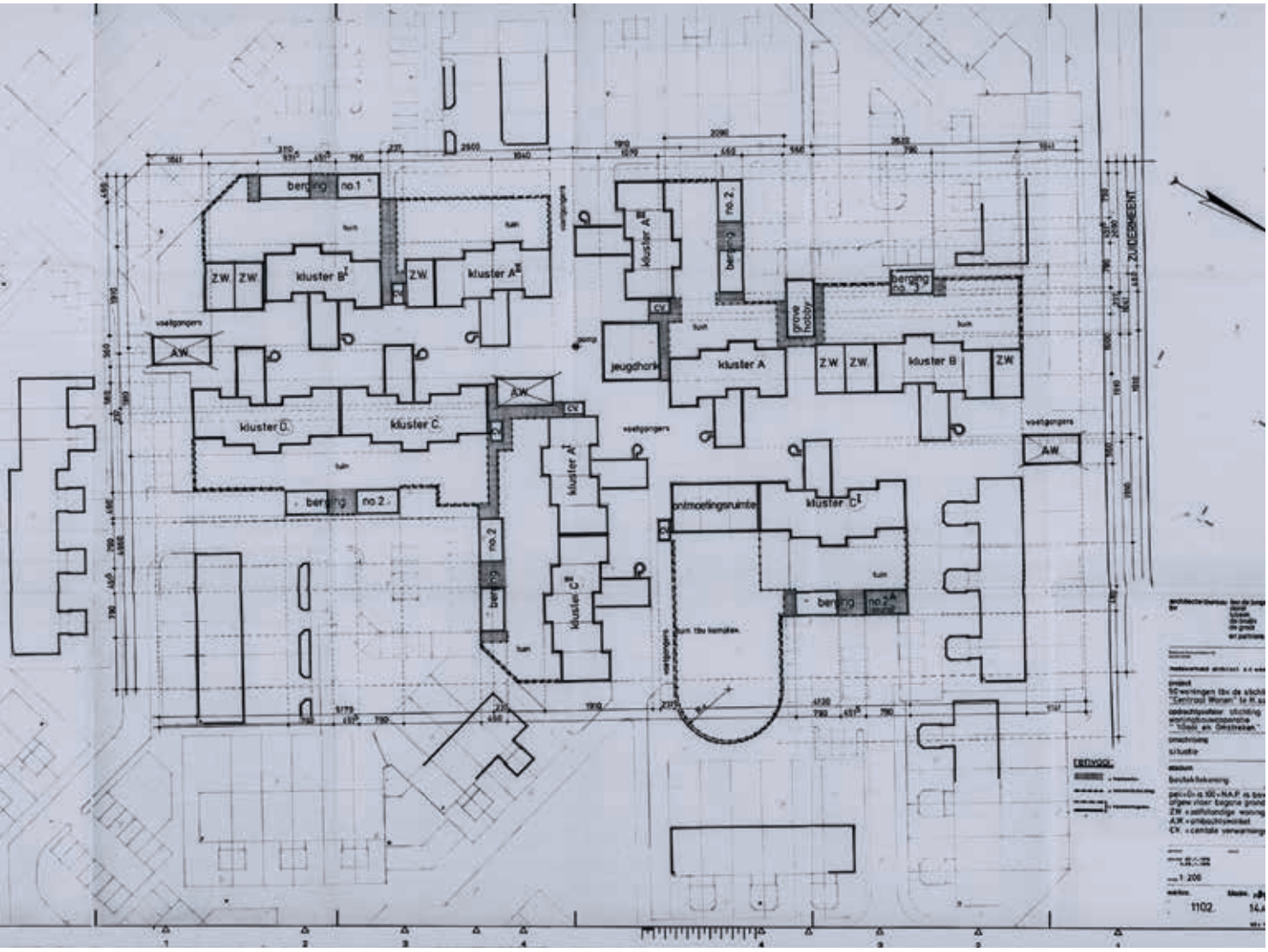
		I	II
Centrale wasgelegenheid	2	12	A
Teenerruimte	5	9	B
Koffie-bar	5	7	B
"Stille" ontmoetingsruimte	6	2	B
"Luide" ontmoetingsruimte	3	1	B
T.V. - ruimten	3	20	B
Crèche	3	10	A
Hobby-ruimte voor lassen e.d.	4	5	C
Hobby-ruimte voor linoleumdruk e.d.	6	6	C
Sauna	-	19	C
Logeerkamers		13	D
Donkere kamer	4	14	C
Muziekkamer	7	11	C
Half-centrale keuken	1	4	A
Centrale keuken	-	18	A
Half-centrale eetruimte	1	3	A
Centrale eetruimte	-	17	A
Studie- (huiswerk-)ruimte	6	8	D
Bergruimten	8	15	D
Ziekenkamer	-	16	D

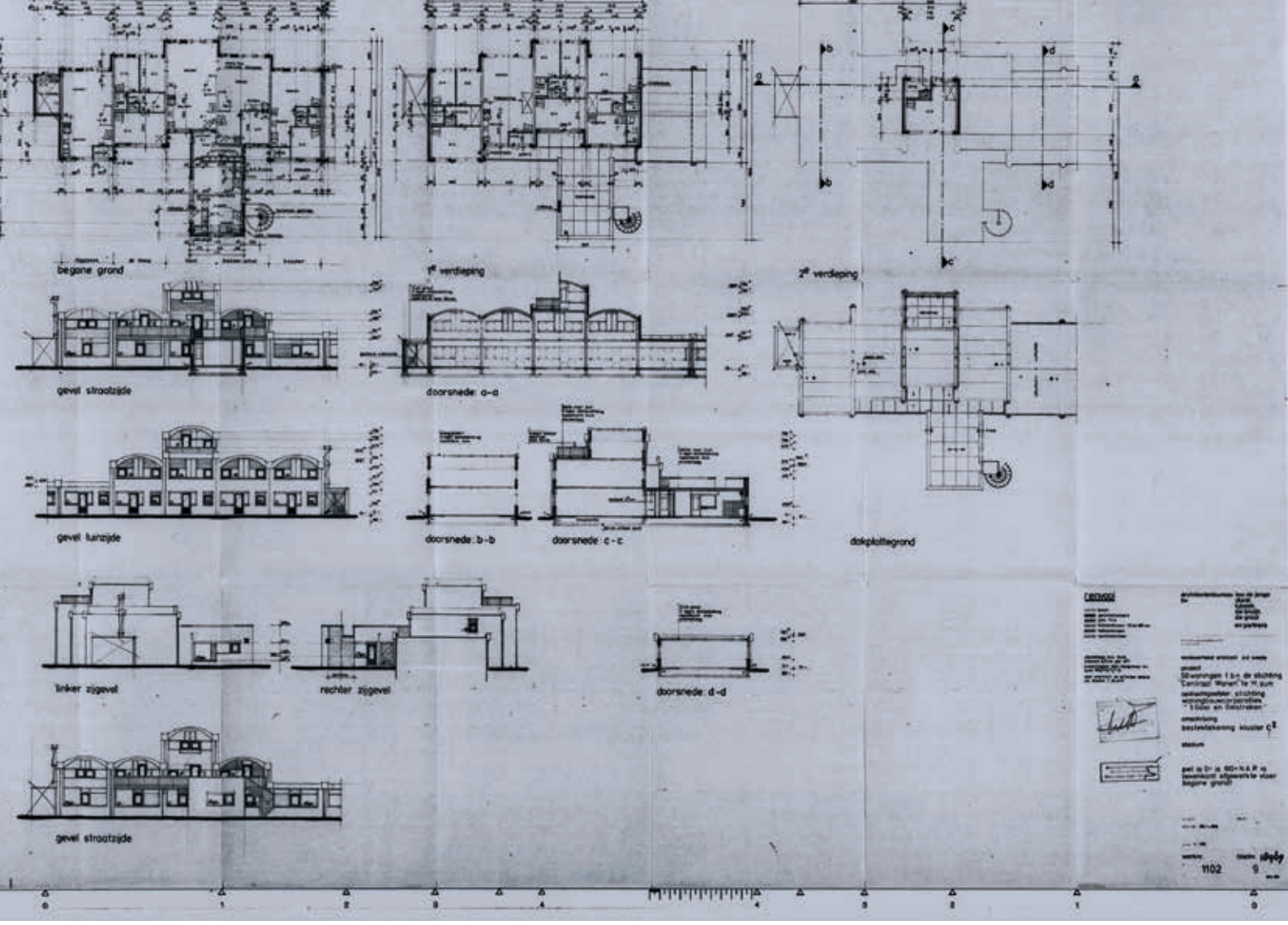
BLANCO RUIMTE

5. Group consultation for the Wandelmeent in Hilversum using movable blocks of wood, c. 1973-1977 (B. de Vries, 'Uit een oude doos', *Gewoon Anders* 32 [2009] 105)

Initially, no housing association was prepared to build and operate the Wandelmeent. But after Weeda had produced a design on a no-cure-no-pay basis, the St. Jozef housing association headed by Nico Schiltmans came on board as client. Also essential for the plan's implementation was the grant from the Experimentele Woningbouw scheme. Thanks to the 'experimental' label, the project secured a bigger grant and exemption from certain building regulations. When the grant turned out to be insufficient to cover all the additional costs, houses were reduced in size and the project received an additional grant so that it could be built within the social housing sector.[28] The Wandelmeent was regarded as an experiment on several fronts: as the first concrete elaboration of the 'Centraal Wonen' idea, because of the residential community's position vis-à-vis the wider district, because of the residents' say over the use and layout of the dwellings, and because of the architect's advisory role.[29] The City of Hilversum designated a site and

6. Leo de Jonge and Pieter Weeda, Wandelmeent in Hilversum, site drawing, 1976 (Gooi & Vecht Historisch)





7. Leo de Jonge and Pieter Weeda, Wandelmeent in Hilversum, plan of a cluster, 1976 (Gooi & Vecht Historisch)

agreed to the allocation of dwellings on the recommendation of the clusters, thus allowing Wandelmeent residents to choose their own neighbours.[30] Wandelmeent was also exempt from the income threshold for social housing.

After a three-year design and development phase and just one year of construction, Wandelmeent was delivered in 1977. In its initial conception the project consisted of fifty dwellings for some 130 residents, a central meeting space, a youth centre, a hobby room, a craft shop, several kitchens linked to the dwellings, shared gardens, storage spaces and roof terraces. In his design Weeda had endeavoured to make the scheme stand out from the surrounding housing without isolating it from the district. The scheme was intended to be village-like – secure, coherent and small-scale – and to convey the impression of a different way of living. To that end, Weeda had designed two intersecting pedestrian streets with a square in the middle, which was also supposed to encourage local residents to wander through the Wandelmeent. The streets were lined by fifty two- to three-storey dwellings topped by a curved roof. The dwellings were offset from one another in position and height. Communal kitchens were set further forward than the dwellings, resulting in a street with multiple enticing corners (fig. 6).

Owing to the combination of various shared amenities with housing, the Wandelmeent is more complex than regular housing. There is a private–cluster–communal hierarchy that was intended to promote a sense of community and social contact among residents. Clustering involved arranging a number of dwellings around a shared space for use by a relatively small group. The dwellings in the Wandelmeent are divided among ten clusters of four to five dwellings; the large windows of the projecting cluster-kitchen allow people on the street to see what is going on inside (fig. 7). The front doors of the dwellings are oriented towards this kitchen to which there is covered access from all the dwellings in the cluster. Each cluster determines how they want their arrange and use their kitchen.

When designing the private spaces, Weeda took account of different household types. There are dwell-

8. Leo de Jonge and Pieter Weeda, Wandelmeent in Hilversum (photo author 2021)

ings in a range of types and sizes, from studios to family dwellings, and the floor plans were easy to adapt to suit different user preferences. Alterations for future residents were also factored in by including punch-through options in structural outer walls, enabling sections of the dwellings to be joined together.[31]

Through its distinctive design the architecture conveys that this is a unique experimental and hierarchically complex project. The individuality of the dwellings is expressed by the unusual roof shapes. The shared facilities have blue doors. The streets are lent visual unity by the materialization of brick, bright red timber facade panels and pale grey edges (fig. 8). The generous street design features spiral stairs with integrated street light, play areas defined by low brick walls, greenery and even their own bus shelter with rounded roof.

These design decisions show that a lot of thought was given to how the architecture would be experienced. The spatial design and architecture of the Wandelmeent are in keeping with the ideals of the small-scale movement, whose proponents strove to capture the essence of the domestic environment. The project was designed with enormous care in consultation with the residents. It is a coherent and simultaneously varied whole and the appropriation of in-between spaces by residents attests to the pleasure of living here.

A DIFFERENT ERA

Centraal Wonen's ideology and concept stemmed from the emancipatory and socio-critical movements of the 1960s and '70s. Yet the vast majority of its projects were realized in the following decade. In the second half of the 1970s there was an economic recession that continued into the 1980s. Government spending was slashed, including on housing, urban planning and architecture. In 1980 the Experimentele Woningbouw scheme was scrapped, while Centraal Wonen's desire to build largely within the social housing sector meant that there was little money for architectural extras.

That a number of Centraal Wonen projects did get built is due in part to changes in government policy. The policy documents 'Bouwstenen voor Woongroepen' (Building blocks for Residential Groups, 1980) and 'Wonen in groepsverband' (Communal Living, 1984) removed some of the obstacles to group housing.[32] In addition, the original demand that the houses be designed in such a way that they could be converted into 'regular' housing (*terugbouwbaarheidseis*) was dropped. Nonetheless, there was no boom in Centraal Wonen projects.

Architecturally, they also suffered a degree of impoverishment. From the late 1970s the architectural fraternity was increasingly critical of the small-scale movement and what the architect Carel Weeber dubbed the 'New Frumpishness'.[33] It was rather unceremoniously dismissed and replaced by neo-rationalism, which was based on clear spatial planning lines, geometric figures, long straight streets, no-nonsense row housing subdivisions, and architecture devoid of ornament. The fact that this type of urban planning

and architecture was considerably cheaper contributed to its success in the 1980s.

We find this turn of events reflected in a great many Centraal Wonen projects. Spatially they continued to display variations on blocks of buildings that together formed a court or home zone, or more urban blocks with an inner courtyard. But architecturally they were rather lacklustre. The distinctive roofs were reduced in height or disappeared altogether, elevations became flatter and materials cheaper, as demonstrated by Centraal Wonen Gerestraat in Leiden and Centraal Wonen Houtwijk in The Hague (figs. 9, 10). In Centraal Wonen Spijkenisse shades of grey and cold materials predominated, in combination with closed facades and shared entrances – not exactly hallmarks of a congenial living environment. The 1970s ideals regarding residents' engagement with one another and their living environment did not readily find expression in the 1980s.

IN CONCLUSION

As a movement within Dutch housing construction Centraal Wonen was the embodiment of what was going on in society and social housing at the time: from criticism of the one-sided building policy in the 1960s, to residents who took matters into their own hands and founded communes and residential groups. At the beginning of the 1970s Centraal Wonen had the wind in its sails. Architects were committed to a

9. A. Canoy, EGM architecten, Centraal Wonen Gerestraat, Leiden, 1987 (Erfgoed Leiden en Omstreken)

10. Andries van Wijngaarden, Architectengroep Van Wijngaarden Strötbaum Benneheij, Centraal Wonen Houtwijk, The Hague, photo Milan Konvalinka 1984 (The Hague City Archives)

humane architecture and urban design, and the new principles conceived by *Forum* in the 1960s were being applied in experimental designs. With the advent of the Den Uyl government the focus shifted to values like emancipation, participation and democratization.

The Centraal Wonen design meetings are an illustration of citizen empowerment in the 1970s. They engaged in idealistic discussions about how the process towards communal living should unfold and how greater resident engagement with the living environment and one another could be achieved.

Centraal Wonen appeared at the hinge point between two eras. While the ideology and concept of this form of living derived from the emancipatory and socio-critical movements of the early 1970s, the majority of the projects were not built until the rationalist 1980s. Centraal Wonen comprised elements of both eras and strove to strike a balance between 'doing together what can be done together' and the independence of the individual. Spatially this resulted in self-contained dwellings and shared spaces, socially in groups of residents who were engaged with one another and their living environment and who reached agreements on maintenance and change.

Although the later Centraal Wonen projects still subscribed to the ideals of the 1970s, in the wider society those ideals were already waning. That there were still many people prepared to live according to Centraal Wonen ideas, and to realize a project within the constraints imposed by the withdrawal of grants and the subsequent impoverishment of the architecture and spatial design, is due to other government policies that specifically stimulated this form of living. Centraal Wonen produced some unique projects, in part because of the considerable influence exercised by the residents. However, it seems that the spatial layout and architecture owed much to prevailing trends in the architectural profession and less to the effect of consultation and communality.

The real inventiveness and quality of Centraal Wonen lay not in the individual elements of consultation, spatial layout, facade design or floor plans, but in combining attention to all these elements within a single project and a shared vision of how life should be lived there. Ideally, the housing projects were intended to become intimate biotopes for a diverse group of residents. This resulted in a great variety of housing projects that were delivered in a very short period of time. For this reason it is difficult to make definitive statements about 'the architecture of Centraal Wonen' or about the success or otherwise of the projects. A project cannot be counted a success because a single family loves living there, and their house can be easily adapted to their preferences; it must cater to the lifestyles and wishes of dozens of residents. Moreover, the architecture may be sober, while the spatial layout delivers a quality that gives the project as a whole its quality.

Although Centraal Wonen was relatively short-lived, communal and alternative forms of living are once again the subject of keen interest. The motto 'doing together what can be done together' appears to resonate in the present day. As such, I prefer like to see the buildings from the early period of Centraal Wonen as a mere comma in the ongoing story of communal forms of living. The concept and the projects are a source of knowledge and inspiration for future communal housing projects – they show what works well and what could be improved.

NOTEN

1 B. Kesler, *Centraal wonen in Nederland. Een onderzoek naar bewonerservaringen en sociaal-ruimtelijke voorwaarden*, Wageningen 1991, 415.
2 Kesler 1991 (note 1), 425.
3 K. Somer, *Groei, verandering en differentiatie. Architectuur in Nederland 1965-1990*, Amersfoort 2020, 9.
4 M. Provoost, 'Ontspannen samenleven. Het maatschappelijk ideaal, het kabinet Den Uyl en de groeikernen', in: M. Provoost (ed.), *Een onvoltooid project*, Rotterdam 2022, 85-100.
5 J.J.B. Kuipers, *De vlucht naar boven. Tegenculturen in Nederland in de jaren zestig en zeventig*, Zutphen 2023.
6 Somer 2020 (note 3), 10.
7 A. Bleich, *Joop den Uyl 1919-1987. Dromer en doordouwer*, Amsterdam 2008, 293.
8 Provoost 2022 (note 4), 95.
9 S.U. Barbieri, *Architectuur en planning. Nederland 1940-1980*, Rotterdam 1983; M. de Vletter, *The Critical Seventies: Architecture and Urban Planning in the Netherlands 1968-1982*, Rotterdam 2004; J.E. Abrahamse, *Opkomst en ontwikkeling van de bloemkoolwijk. Het ontwerp van woonwijken in Nederland en de zoektocht naar identiteit*, Amersfoort 2019.
10 John Habraken, *Supports, An alternative to mass housing,* the Architectural Press, London, 1972
11 While there is as yet no standard work on urban and architectural design in this period, there are several publications that provide an initial overview: N. de Boer and D. Lambert, *Woonwijken. Nederlandse stedebouw 1945-1985*, Rotterdam 1987; A. Reijndorp, L. Bijlsma and I. Nio, *Atlas nieuwe steden. De verstedelijking van groeikernen*, Haarlem 2012; M. Barzilay, R. Ferwerda and A. Blom, *Experimentele woningbouw in Nederland 1968-1980*, Rotterdam 2019; M. Waaldijk, 'Sub-Urban Renewal. A Future for Post 65 Aesthetic and Spatial Identity in Suburban Housing Renovation and Densification', June 2022 (master's thesis TU Delft). The most recent studies are published on the website post65.nl/.
12 J.E. Abrahamse 2019 (note 9), 14-15. Cf. Ernst Schumaker's 'Small is beautiful'.
13 C.J. Cramwinckel-Weeda, *Communes en communebewegingen. Een literatuurstudie*, Deventer 1976, 29.
14 S. Schmid, *A History of Collective Living. Forms of Shared Housing*, Basel 2019, 192-194.
15 L. Kleyn, 'Wonen zonder wegwijzers', *Trouw*, 20 March 1973, 13.
16 S. Lee, *The Commune Movement during*

the 1960s and 1970s in Britain, Denmark and the United States, (doctoral thesis, University of Leeds) 2016, 183.

17 'Erg democratisch gezin niet goed voor jonge kinderen', [overly democratic family not good for young children] *Nieuwsblad van het Noorden*, 13 March 1975, 3.

18 M. Engelhard, *Een samenleving in beweging. Nederland tussen 1976 en 2005 in 200 trends en 100 hotspots*, The Hague: National Archives, 2016, 436.

19 Schmid 2019 (note 14).

20 M.H. Thissen, 'Centraal Wonen in 1971. Een verslag van waarneming, begeleiding en onderzoek over een jaar uit een aktie proces', (unpublished) 1971a.

21 C.D. Saal, 'Centraal Wonen: tweestromenland', *de Architect* 10 (1979), 61-62.

22 'Centraal wonen. Een autonome ontwikkeling naar een geïntegreerde leefstijl', 29-31. Rotterdam, HNI, Bouwfonds informatiemap Centraal Wonen, SH B.07.3, 1976.

23 H. Toet, 'Centraal Wonen 40 jaar geleden', *Gewoon Anders* 32 (2009) 105, 6-7.

24 De Wandelmeent, 'De Oprichting', <wandelmeent.nl/geschiedenis-2/> (accessed 7 April 2021).

25 Interview with resident Marian Verweij, De Wandelmeent, 1 February 2021.

26 D. Fromm and E. de Jong, *Cluster Cohousing Revisited*, Berkeley/Rotterdam 2019, 41.

27 Kesler 1991 (note 1), 261.

28 Kesler 1991 (note 1), 30-31.

29 H.D. Baars and H. Grossouw, *Ontwerpen met predikaat, 1973-1974*, series A2, The Hague: Ministry of Housing and Spatial Planning (VRO), 1978.

30 Kesler 1991 (note 1), 88.

31 R. Krabbe and P. Vlug (eds.), *Centraal Wonen in beeld 1977-1986 deel 1*, Rotterdam/Hoogezand: Stichting Huis in Eigen Hand/Landelijke Vereniging Centraal Wonen, 1986, 36.

32 Krabbe and Vlug 1986 (note 31).

33 H. van Velzen, M. van Winsen and B. Schout, *Handreiking Borging van Post 65 erfgoed. Consistent beleid voor Post 65 erfgoed met de Omgevingswet*, Amersfoort: Rijksdienst voor het Cultureel Erfgoed, 2022.

S. VAN DRENTH MA studied Architectural History at the Vrije Universiteit in Amsterdam, where she wrote a master's thesis on the emergence and architecture of Centraal Wonen in the Netherlands. She is currently working as an architectural historian with Contrei, a cultural-historical research office in Rotterdam.

'DOING TOGETHER WHAT CAN BE DONE TOGETHER'

THE INTERRUPTED HISTORY OF CO-HOUSING IN THE NETHERLANDS

SANNE VAN DRENTH

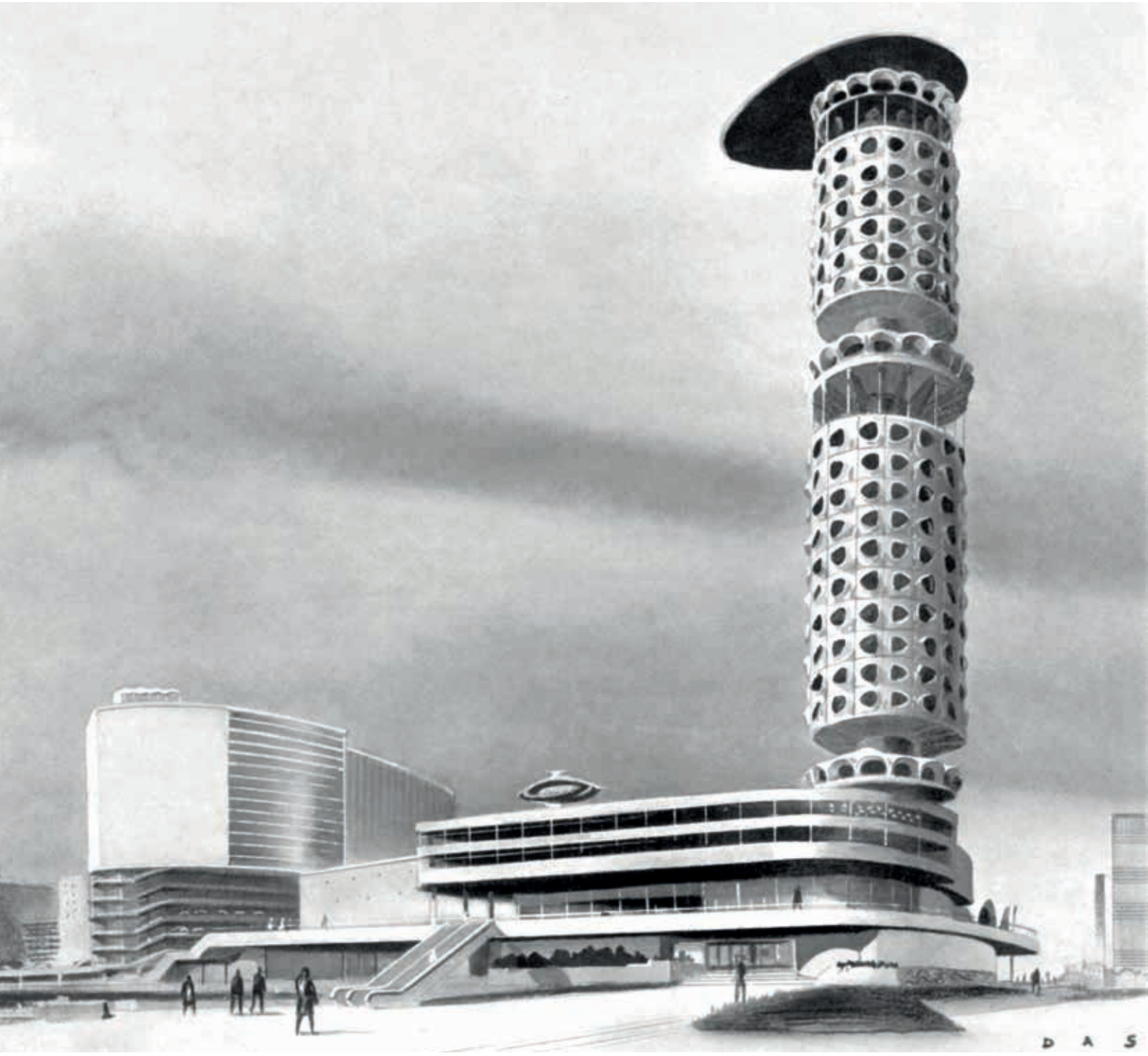
Centraal Wonen was a form of co-housing that arose in the Netherlands in the 1970s. It involved several households sharing a variety of communal amenities within the same residential development. The housing complexes were intended to accommodate a diverse group of residents of up to 250 individuals and were usually designed in consultation with the prospective residents.

The initiators of Centraal Wonen believed that this type of living arrangement offered a solution to various social issues, including the inferior status of women, increasing loneliness and a housing stock biased in favour of single-family houses and apartments. The alternative to Centraal Wonen were residential developments in which a fine-grained mix of dwellings and communal amenities created the conditions for the spontaneous emergence of a tight-knit community. It is estimated that between 1977 and 1991 over sixty Centraal Wonen projects were built, after which co-housing faded into oblivion.

Centraal Wonen emerged at a hinge point between two eras, and this is reflected in both the concept and its manifestation. The ideological underpinning was perfectly in tune with the emancipatory and socio-critical movements of the early 1970s, whereas the majority of the projects were not built until the more pragmatic 1980s. Centraal Wonen included elements of both eras: 'doing together what can be done together', but not at the expense of the individual's independence. The very first project, the Wandelmeent, was exemplary of the small-scale movement whose adherents strove to capture the essence of a recognizable and homely living environment with a varied streetscape. The vast majority of projects were built in the 1980s, by which time the architectural expression was starting to look a bit lacklustre. Moreover, the design of Centraal Wonen projects was based more on architectural trends and the architect's choices and less on the results of consultation and communality.

The real inventiveness and quality of Centraal Wonen lay not in individual components, such as the consultation process, the design and the floor plan, but in uniting concern for all those components within a single project, guided by a shared vision of how to live.

Although Centraal Wonen proved to be relatively short-lived, communal and alternative forms of living have once again been attracting keen interest in recent years. It seems that the motto 'do together what can be done together' resonates in today's world. The Centraal Wonen projects constitute a valuable source for new communal housing projects and as such should not be forgotten.

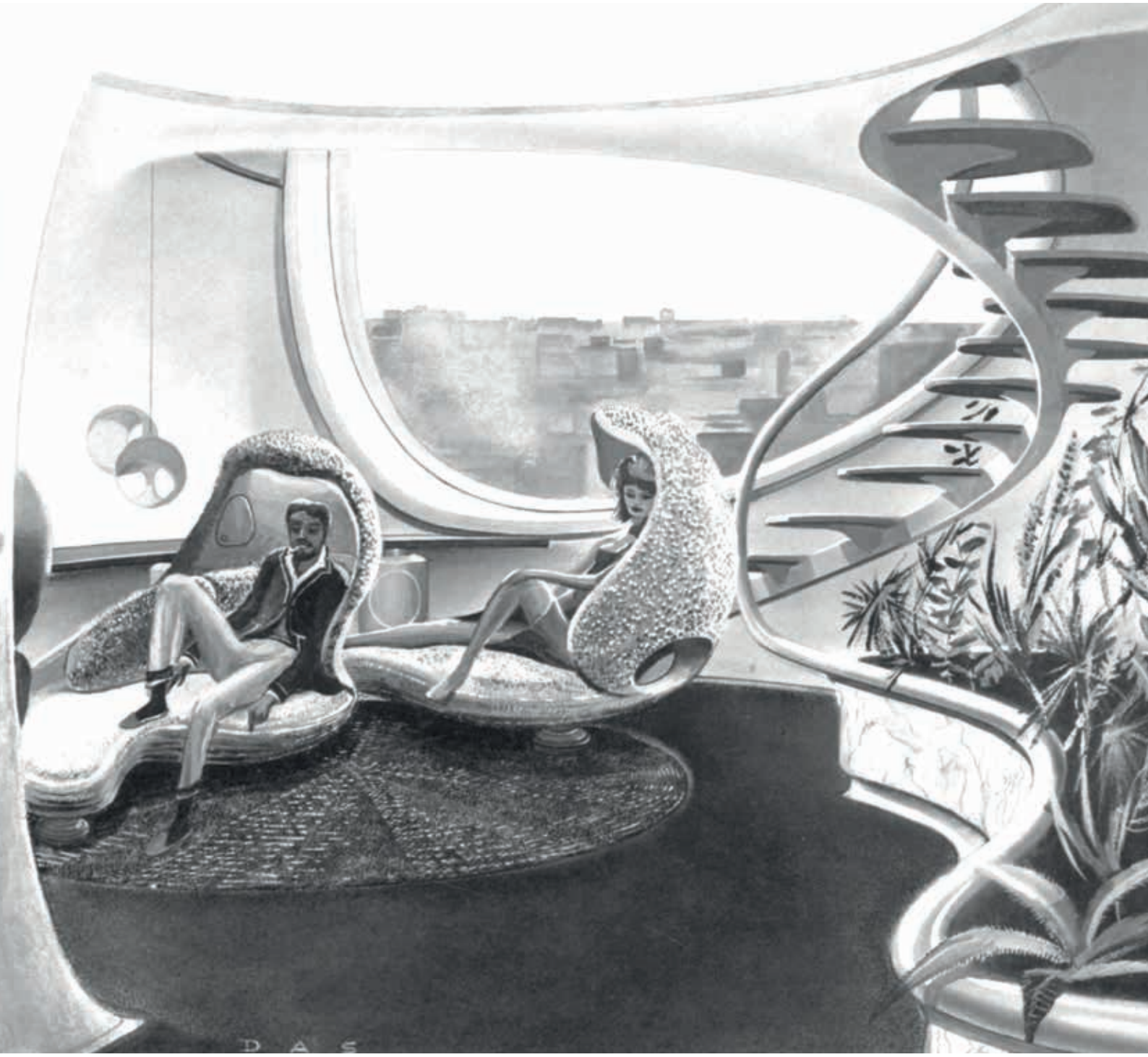


PLASTIC DREAMS

FACADES OF FIBREGLASS REINFORCED POLYESTER IN THE NETHERLANDS

SARA DUISTERS

▲ 1 and 2. Robbert and Rudolf Das and C.R. de Vries, design for the Futurotel exterior and interior, 1966 (*Futurotel. De hotelkamer van de toekomst*, 1966)



A world without plastic is almost impossible to imagine anymore. Yet it is only around 160 years ago that the first synthetic plastic was developed.[1] The material, which has brought about major changes in a variety of industries, is used in a range of products, including packaging, clothing, furniture, military supplies, dinner services, electronics – and in the construction industry. At the end of the 1950s experiments with the use of plastics in architecture were being carried out in various places around the world. Architects like Ionel Schein (France) and Richard Buckminster Fuller (United States) were among the first to see the potential for using plastic in the exterior of their buildings.[2] The most important plastic for this purpose was fibre-reinforced plastic, FRP for short. Mixing fibreglass and polyester resulted in a lightweight material that was extremely strong – ideal for construction in other words. FRP was used for a variety of building elements, such as skylights, internal walls, bathrooms and toilets. However, thanks to its exceptional proper-

ties – it could be used for load-bearing walls, for example – it was employed chiefly for external cladding; as a facade material it played an important role in experiments with plastic in architecture.

The Netherlands has its share of post-war FRP structures, built mainly in the years 1959-1983.[3] It is those buildings that are the subject of this article, which looks at the social changes that helped fuel the use of this material in facades and buildings. Source materials about the use of plastics, and FRP in particular, in Dutch architecture are thin on the ground. Little scientific research has been conducted into the use of this material and the archives of construction companies and architects known to have worked with FRP are often inaccessible.[4] This article consequently draws on newspaper articles and trade journals from the 1950s to 1980. From the resulting inventory of Dutch buildings with an FRP facade, a number of examples that illustrate the social ideas associated with the use of plastic in architecture have been selected as a spur to further research.

A PLASTIC FUTURE

Plastic-making experiments began as far back as 1860, but the true breakthrough did not occur until the Second World War when a shortage of natural rubber stimulated the manufacture of synthetic rubber.[5] The army's demand for plastic – for gas masks, helmets, radios and the like – prompted an explosive growth in production.[6] When the war ended this development continued at a rapid pace. Thanks to the falling price of oil, one of the main ingredients of the material, the use of plastic became increasingly attractive.[7] After this there was no going back: plastic was *the* material of the future.

Reinforced plastics, which is to say plastics mixed with another material, played a key role in this development. The initial impetus behind this composite material was financial: fillers like paper or glass fibres were added to the plastic to drive down the cost of materials. When it turned out that these additions improved the material's properties, experiments with reinforced plastics really took off. One of the products was fibreglass reinforced polyester.[8] During the war FRP was used in the production of ships, aircraft and cars. When the army's demand for these forms of transport fell away after the war, the manufacturing companies involved looked for new markets in which to deploy their expertise. One such market was housing construction.[9]

PLASTIC IN ARCHITECTURE

During the post-war reconstruction of Europe there was a lot of experimentation in housing. In the wake of the war, European countries experienced a severe shortage of housing. The solution was sought in industrial production methods. System building, which employed prefabricated elements, made it possible to build large numbers of dwellings in a short period of time. This was where plastic shone: it was industrially manufactured and was well suited to use in the 'sandwich panels' that were widely employed in system building.[10] These panels were made up of two thin outer layers of plastic with a core of foam or cardboard. FRP was ideal for this because the material has a high load-bearing capacity, is lightweight, and can be manufactured in every shape and colour imaginable.[11]

The experiments with plastic building materials were also in tune with the prevailing social ideas of the reconstruction period. People were optimistic about the future and architects translated that optimism into a wholly new way of living.[12] With lightweight and industrially manufactured plastics like FRP, the dwellings of the future would be flexible and mobile. Ideally, they would grow with the family and be relocatable, so that people could take their dwelling with them when they moved to another place. That was the idea, at any rate.[13]

It was the oil crisis of 1973 that put paid to the use of plastic in construction. The material became more expensive and less attractive for high-volume housing construction.[14] It turned out that plastic was not an unfailing solution because raw materials like oil could run out.[15] People were also starting to think about plastic's damaging effect on the environment and the material acquired negative connotations in society.[16]

FRP ARCHITECTURE IN THE NETHERLANDS

The development and importance of plastics in the Dutch construction world was the subject matter of *Plastica. Maandblad ter verspreiding van de kennis der kunststoffen*, a monthly trade journal published from 1948 by the Netherlands Association-Federation for Plastics. In 1956 the journal published a two-part article entitled 'Does the plastic house have a future?'.[17] Although the author believed that the industrial manufacture of the material could play a major role in high-volume housing construction, he nonetheless observed that the earliest examples of plastic dwellings in other countries should be seen 'as interesting experiments rather than as serious attempts to solve the prevailing housing shortage'. The experiments deviated too much from the 'normal' housing type to be able to offer occupants the level of comfort they were used to.

The idea of building with plastic also figured in the centenary celebrations of Amsterdam's Grand Hotel Krasnapolsky in 1966. The management asked industrial designers Robbert and Rudolf Das and architect C.R. de Vries to come up with an impression of what

3. Wim Pijpers, plastic house, produced from 1962 by the firm Frits Bode Bouwplastic N.V. (*Bouw* 18 [1963] 51)

the hotel might look like in the year 2000. The designers made extensive use of FRP (figs. 1 and 2).[18] In *Futurotel. De hotelkamer van de toekomst* they justified the use of this material as follows: 'Serial use of fibreglass-polyester as a building material is tentatively gathering pace right now. In our opinion it is often completely misused, namely in flat rectangular panels, just like wood or concrete, whereas it is a material that calls for a new double-curved form.'[19] The Futurotel could be built cheaply and industrially using FRP and, because the room modules were removable, it would be easy for Krasnapolsky to adapt to any new trends in the future.

The use of FRP in the Netherlands did not end with Hotel Krasnapolsky's dreams of the future. Several interesting structures featuring FRP elevations were actually built and some of these are discussed below.

PLASTIC CITY, 1959

On 24 March 1959 Dutch newspapers reported the construction of the first plastic bungalow in the Netherlands. The architect was the fifty-year-old Wim Pijpers from Rotterdam. He had designed the house for the Belgian Magiotte Company, which had wanted to demonstrate the potential of plastic in housing construction by building a 'Plastic City' in Putte and Rotterdam.[20] Pijpers' plastic house in Vlissingen was manufactured by N.V. Plastic City and was sold in the form of a DIY flat pack for 12,000 guilders (fig. 3). The model home contained 120 kilos of plastic and the front elevation was in bright yellow and black.[21] The inner and outer walls were made of an FRP sandwich structure reinforced with a core of honeycomb cardboard.[22]

This first plastic house was still an experiment and the notion of a Plastic City, like Krasnapolsky's Futurotel, was a vision for the future. Nevertheless, the design clearly embodied the social ideas of the time. Journalists pointed to the new, flexible mode of living provided by the bungalow: 'One advantage of the house: when people need to relocate, they don't just load the contents into a removal van, they also load the (dismantled) house onto a lorry .... Only to reassemble it at their destination like a box of building blocks.'[23]

INSTANT HOME, 1963

In 1963, four years after Wim Pijpers' pioneering plastic house, the Royal Dutch Aircraft Factory Fokker presented an entirely factory-made plastic home. The factory had embarked on experiments like this in anticipation of a decline in the production of military aircraft. To compensate that loss, Fokker was looking for a secondary activity that would allow them to make use of their expertise with FRP. In 1958, with an eye to the post-war housing shortage, Egbert van Emden, aircraft designer and technical director of Fokker, came up with a plan for a prefabricated home made entirely of plastic.[24]

Between 1963 and 1964 a prototype of the Instant Home was built on the Fokker factory site, after which Van Emden and his wife took up residence in order to put it to the test (fig. 4).[25] The house was made of self-supporting FRP sandwich panels that were new to the market.[26] The Instant Home was 10.14 metres long,

4. The Instant Home by the Royal Dutch Aircraft Factory Fokker, 1963 (National Archives of the Netherlands/ Collection Spaarnestad/Henk Hilterman)

7 metres wide and 2.8 metres high. The dimensions conformed to the maximum permitted sizes for road transport.[27] This meant that the components of the dwelling could be transported in a single factory-to-site journey and then assembled on location; this represented a considerable cost saving compared with traditional housing construction.[28]

Fokker adapted aircraft construction techniques to make the Instant Home as robust as possible. For example, it used a special gluing technique to fix the building components together.[29] Fokker was keen to demonstrate the important role the industry could play in solving the housing crisis. In the end the Instant Home was never marketed, but Fokker did go on to produce their in-house designed plastic facade panels.[30]

SINGLE-FAMILY HOMES IN STADSKANAAL, 1967

In 1967 a block of houses with an FRP facade was built in Stadskanaal in the province of Groningen (fig. 5). The four houses were designed by the EGKS working group, made up of the architects D.A. **E**maar, H. **G**roefsema, B. **K**leinenberg and J.N. van der **S**luis. They regarded the houses as a prototype that would eventually generate an infinite number of possibilities for different housing types in low- and high-rise permutations, as well as office buildings and factories.[31]

The dwellings were the usual single-family type and could be delivered in just two weeks.[32] Unlike the earlier designs by Pijpers and Fokker, where the focus had been on achieving maximum flexibility, these dwellings had a fixed steel frame, which made them difficult to relocate. Each house in this construction project contained six FRP system panels manufactured by the Frits Bode company in Breda.[33]

Although the architects had had great plans for the future with these houses, one year after completion three of the four were still standing empty; society was not yet ready to make the switch to a plastic house.[34]

OEGEMA HOUSE, 1969

The first three plastic dwellings still looked reasonably conventional owing to their rectangular form. That all changed with Groningen architect Pieter Oegema. In 1969 he designed a plastic house that was built a year later on Friesestraatweg in Groningen (fig. 6). It had already been established that plastic could be used to make houses that were easy to relocate or adapt.

Oegema added one more advantage, demonstrating that designers could use the material to give buildings a completely different appearance. 'Living will take a different form. The fact is that we want more playful shapes,' he stated.[35]

The house, which Oegema used for his architectural practice, would certainly have stood out among the surrounding rectangular apartment buildings given its striking semicircular domed form – Oegema dubbed it a 'half melon'.[36] It stood above ground level on concrete posts and consisted of fifteen FRP shells. One of the shells contained a door and four others round windows.[37] This unusual structure opened the way for a new approach to FRP use. In the years that followed architects and manufacturers increasingly experimented with the futuristic forms that could be achieved with this material.

5. EGKS working group, houses in Stadskanaal, 1967 (photo Hans de Smidt, Groninger Archieven)

FUTURA, 1970

Playful forms also feature in the design of Futura, a holiday home marketed in 1970 by the Dutch Plastics Industry (NKI). The NKI was a major supplier of plastic facade elements and Futura was intended to demonstrate the material's versatility.[38]

Futura was made up of twelve separate FRP segments combined into a round shape (fig. 7). The house had a flexible internal layout that could be determined by the occupant.[39] There were also two options for the holiday house's placement: directly on the ground, or perched mushroom-like above the ground on a solid

6. Pieter Oegema, the Oegema House in Groningen, 1969 (photo Persfotobureau D. van der Veen, Groninger Archieven)

7. Dutch Plastic Industry (NKI), Futura holiday house, 1970 (photo Jos Pé, Regionaal Historisch Centrum Eindhoven)

8. Le Comte Holland N.V., Gemini-bungalow, 1972 (National Archives of the Netherlands/Collectie Spaarnestad/ANP)

central base.[40] The structure's odd-looking external appearance prompted comparisons with a flying saucer.[41] NKI's Futura was the first FRP project intended to be sold in large numbers. And in that it succeeded. In 1975, in a special issue on plastics in construction, *de Architect* reported that two hundred Futuras had been produced so far; the plastic bungalow had passed beyond the experimental phase.[42]

GEMINI, 1972

Like Fokker's Instant Home, the Gemini bungalow had its roots in the transport industry. Its producer, Le Comte Holland N.V. was a major player in shipbuilding.[43] The Gemini consisted of two dome-shaped FRP shells coupled together by a gently sloping FRP roof (fig. 8). The front elevation was made of dark aluminium. The form of the shells reflected the bungalow's shipbuilding origins: they looked like the hull of a ship.[44] It is not clear whether this was done in a subtle allusion to the expertise of the designer or because using ship's hull moulds saved money.

Managing director Adolf Le Comte had a prototype

installed on the factory site and he and his wife moved in to test it.[45] *Het Parool* wrote: 'It looks as if the first plastic house project of any size to really take off in the Netherlands will be a bungalow complex in Vianen.'[46] Yet it appears that not much came of this venture either: after 1972 there is little mention of the bungalow to be found in newspapers and magazines. *Trouw* had written: 'The design, by Mr Le Comte, is rather futuristic and breaks radically with prevailing views on housing in the Netherlands.'[47]

AZM OFFICE BUILDING, 1972

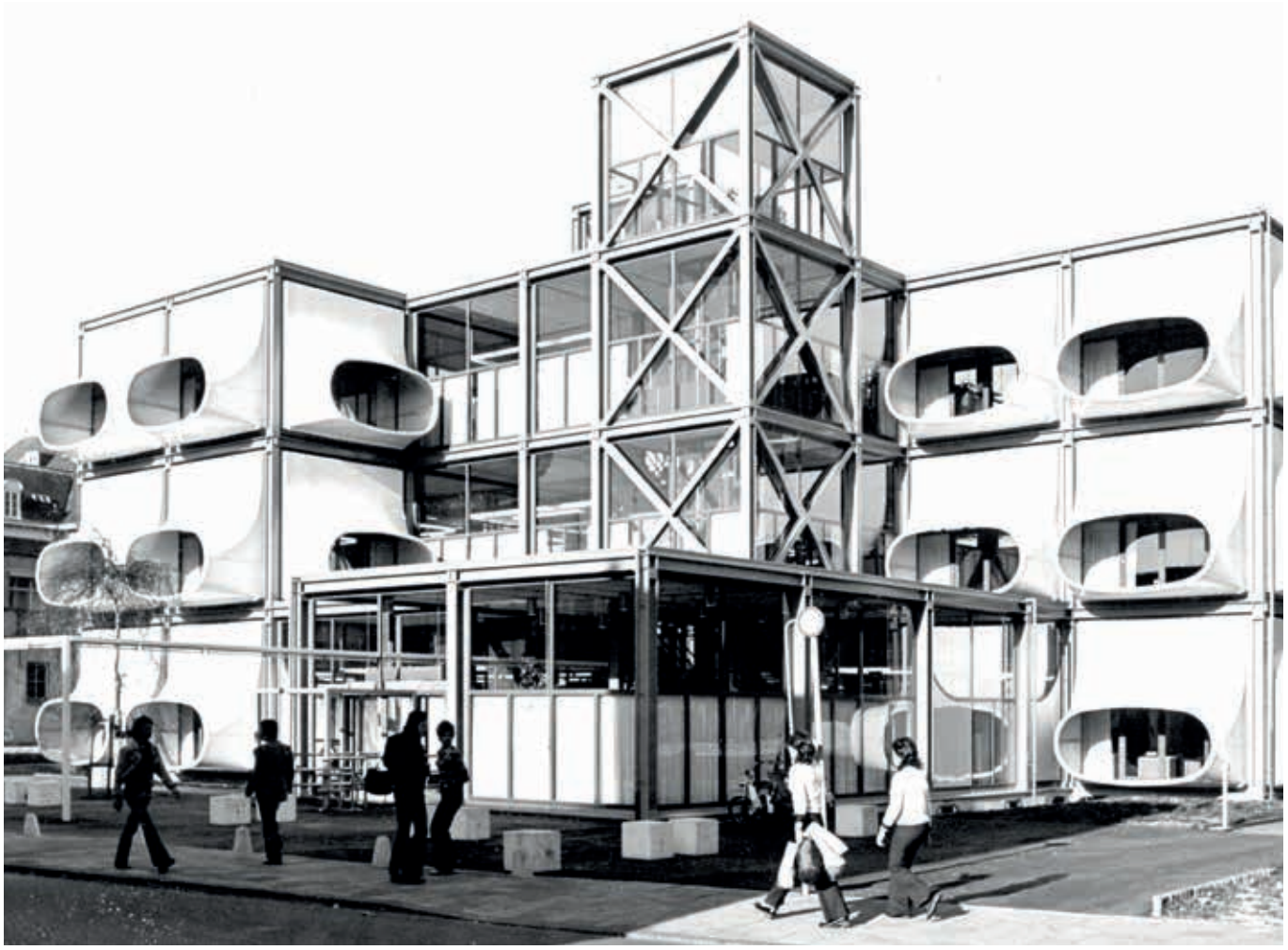
Another elevation in which FRP was used to create a new formal idiom was that of the Algemeen Ziekenfonds van de Mijnstreek (AZM) offices in Heerlen. Architect and artist Laurens Bisscheroux was commissioned to design an office building that was flexible and open in character. The brief specified that it should be easy to adapt both the interior and exterior and that the building should have a flexible internal layout.[48] This was one of the first occasions on which FRP panels were used in a large office building for a major client.

Bisscheroux designed a futuristic structure with FRP components supplied by NKI. Owing to the unusual protrusions around the windows, the building was popularly known as the 'tooter' or 'tits' building (fig. 9). The office had a steel frame into which the polyester panels were inserted. The shape of the facade panels was functional to the extent that the 'tooters' ensured that the amount of light entering the large windows remained constant.[49] This ultimately proved to be a mistake; in summer the building was too warm and in winter too cold. In addition, the FRP panels were quickly dirtied by the exhaust fumes of passing cars and in the evenings the protrusions were popular with amorous teenagers. The upshot was that in 1987, a mere fifteen years after completion, the AZM building was demolished.[50]

SONY DISTRIBUTION CENTRE, 1972

The Sony distribution centre in Vianen is one of the last buildings with an FRP facade to have been completed before the 1973 oil crisis. At that time the architect Jan Brouwer was busy experimenting with the use

9. Laurens Bisscheroux, AZM office building in Heerlen, 1972 (Historisch Centrum Limburg)



of plastic facade panels: at first primarily with FRP, later with glass-filled polycarbonate as well.[51] Brouwer was working towards a recognizable visual idiom using FRP.[52] His facade panels were distinguished by rounded corners, a ripple structure and facade openings reminiscent of car windows.[53]

The Vianen distribution centre's dual functions were reflected in the building's two storeys (fig. 10). The more enclosed ground floor, for which Brouwer used reinforced concrete, was for storing merchandise. The upper floor contained offices and its facade consisted of yellow FRP sandwich panels with large window openings. Brouwer's use of the possibilities offered by FRP to signal the building's different functions (distribution centre and office) to the outside world was a first in FRP architecture.[54]

SBC BUILDING, 1975

The educational building for Stichting Bijzondere Cursussen (SBC) in Zwijndrecht was built after the 1973 oil crisis. The NKI-supplied plastic panels that architect Ton Lanz used to cover the facade were much longer than any of the previously mentioned examples. The eleven-metre-tall vertical panels span all three storeys (fig. 11).[55] The cuboid building, which stands on a kind of brick pedestal, has a minimalist appearance courtesy of the taut white plastic facade with small square windows. The building's corners are rounded, and the sculptural window frames were moulded together with the panels.[56]

In 2018 the owner's plans to demolish the building caused an outcry in Zwijndrecht. The local historical society led a successful campaign for preservation and the building was granted municipal listed status on account of its special cultural value – an indication of the growing appreciation for plastic architecture in the heritage sector.[57]

10. Jan Brouwer, Sony Distribution Centre in Vianen, 1972 (photo Jan Brouwer)

THE EVALUATION OF FRP ARCHITECTURE

Most of the buildings mentioned in this article have since been demolished. Many of the earliest examples of FRP architecture were one-off prototypes or experiments that were not intended for long-term occupation.[58] Some of these buildings, like aircraft manufacturer Fokker's Instant Home, stood on factory sites where they were briefly occupied in order to demonstrate that plastic did not diminish living comfort.[59] Furthermore, the material was never really popular. People were loath to exchange their brick or concrete dwellings – materials with a proven history of safety and solidity – for a plastic version.[60]

Even today the material is not exactly popular, as became apparent when the SBC building was granted local listed status in 2018. Many Zwijndrecht residents were astonished; they thought it was 'hideous'.[61] Another problem is the lack of knowhow in the heritage sector regarding the conservation and restoration of buildings containing FRP. That became obvious in relation to the FRP 'Shelter' prototype designed in the late 1970s by interior architect Kor Aldershoff (fig. 12). It was intended as temporary housing, for example in disaster areas. But because it proved difficult to assemble and disassemble – a crucial feature of the design – the Shelter did not proceed beyond the prototype.[62] The badly damaged building was recently gifted to the heritage preservation association, Vereniging Hendrick de Keyser. There, due to the lack of FRP knowhow, Shelter's restoration proved to be something of a nightmare.[63]

That said, interest in plastic architecture is increasing in the heritage sector, in tandem with the growing interest in post-1965 architecture, and this time the focus is on preservation rather than demolition. FRP's negative image is finally starting to swing the other way.

11. Ton Lanz, SBC building in Zwijndrecht, 1975 (Regionaal Archief Dordrecht)

12. Kor Aldershoff, Shelter, late 1970s (photo Roos Aldershoff)

CONCLUSION

This article has considered the social changes and ideas that informed the decision by architects and companies to employ fibre reinforced polyester in architecture. To illustrate how this new way of thinking about living and building was applied in practice it has looked at ten Dutch buildings in which the material was used in the elevations. The examples show how the use of FRP evolved during the 1960s and '70s. Experiments with FRP began at a time when plastic was seen as a material that could be used to shape the future and solve the housing crisis. When its price soared, and its harmful ecological effects became known this idea had to be adjusted. Architects switched their focus to the possibilities offered by FRP's formability. The structure of FRP buildings also underwent a change. The early plastic houses had load-bearing FRP walls, but later on the material was used in the form of facade panels mounted in a steel frame.

All in all, there were a lot of experiments with FRP in the Dutch building industry. The material was used in a variety of building types: holiday houses, permanent dwellings, office buildings and distribution centres. Although there were high hopes for the use of FRP in construction in the 1950s and '60s, they were never realized on a large scale. Plastic does not occupy the prominent place in architecture that people envisaged after the war. Nevertheless, some exceptional buildings with FRP elevations were realized in the Netherlands and they represent a history in which there is still much to discover.

NOTEN

1 S.C. Rasmussen, 'From Parkesine to celluloid. The birth of organic plastics', *Angewandte Chemie* (International ed.) 60 (2021) 15, 8012-8016.
2 I. ter Borch et al., *Skins for buildings. The architect's materials sample book*, Amsterdam 2004, 430. See also: P. Voigt, *Die Pionierphase des Bauens mit glasfaserverstärkten Kunststoffen (GFK) 1942 bis 1980*, PhD thesis Bauhaus-Universität Weimar, 2007, 39; E. Genzel and P. Voigt 'Plastik-Träume', *Tec21* 132 (2006) 44, 4.
3 P. Huybers, 'Het kunststof huis', *de Architect* 6 (1975) 7, 27-31.
4 Written sources include: E.K.H. Wulkan, 'Experimentele woonhuizen van kunststof II', *Bouw* 18 (1963) 51, 1762-1767; 'Heeft een plastichuis toekomst?', *Plastica. Maandblad ter verspreiding van de kennis der kuststoffen* 9 (1956) 8, 456-459; 'Kunststoffen voor de woningbouw', *Algemeen Handelsblad*, 13 April 1966, 4; L. van Zetten, *Kunststoffen in de bouw*, Doetinchem 1971, offprint of the series of articles 'Kunststoffen in de bouw', published in *Bouwwereld* 9 and 23 May, 6 and 20 June, 4 and 18 July 1969; E.M.L. Bervoets and F.C.A. Veraart assisted by M.T. Wilmink, 'Bezinning, ordening en afstemming 1940-1970', in: J.W. Schot et al. (eds.), *Techniek in Nederland in de twintigste eeuw. Deel 6: Stad, bouw, industriële productie*, Zutphen, 2003, 215-239.
5 Rasmussen 2021 (note 1); P. Bot, *Vademecum: Historische bouwmaterialen, installaties en infrastructuur*, Alphen aan de Maas 2009, 176.
6 Y. Shashoua, *Conservation of Plastics. Materials science, degradation and preservation*, Oxford 2008, 31.
7 Bot 2009 (note 5).
8 J.F Kohlwey, *Kunststoffen. Fabricage, eigenschappen, verwerking, toepassing*, Amsterdam 1971, 166-172. See also: E.A.H. Algra, 'De afdeling G.K.: Gewapende kunststoffen', *Plastica. Maandblad ter verspreiding van de kennis der kunststoffen* 9 (September 1956) 9, 512-516; and A. Faas, *Praktijk-handboek kunststoffen: koudhardend – glasvezelgewapend*, Baarn 1991, Ch. 1.
9 Genzel and Voigt (note 2) 4-9.
10 J. Schepers, *Wonen in kunststof. N.V. Koninklijke Nederlandse Vliegtuigenfabriek Fokker*, 1958-1975, Schalkhaar 2012, 28-29.
11 Faas 1991 (note 8), Ch. 1; Genzel and Voigt 2006 (note 2).
12 Voigt 2007 (note 2), 12.
13 Schepers 2012 (note 10), 21.
14 Ter Borch 2004 (note 2), 431.
15 Shashoua 2008 (note 6), 31.
16 A. Koch, *Plastic aangeprezen. Het imago van kunststof in de wooncultuur van de laatste vijftig jaar*, Zoetermeer 2003, 13.
17 Heeft een plastichuis toekomst? 1956 (note 4), 456-459 and 'Heeft een plastichuis toekomst? Part 2', *Plastica. Maandblad ter verspreiding van de kennis der kunststoffen* 9 (1956) 9, 524-527.
18 'Hotel voor jaar 2000 ontworpen', *Het Parool*, 12 May 1966, 3.
19 R. Das, R. Das and C.R. de Vries, *Futurotel. De hotelkamer van de toekomst*, Amsterdam 1966, quote is on the fifth (unnumbered) page.
20 'Dorp in plastic', *De Tijd*, 11 July 1957, 1.
21 'Na drie jaar experimenteren. Huizen van plastic. Vondst van Rotterdams architect', *de Volkskrant*, 4 April 1959, 13. See also: 'Plastic bungalow lijkt op luxe bonbondoos', *Het Vrije Volk*, 24 March 1959, 7.
22 Wulkan 1963 (note 4), 1765.
23 Plastic bungalow 1959 (note 21), 7.
24 Schepers 2012 (note 10), 11-12, 35.
25 'Bewoners loven plastic huis: vrijwel geen onderhoud en makkelijk verplaatsbaar', [Occupants praise plastic house: virtually zero maintenance and easy to relocate] *Het Parool*, 13 June 1964, 3.
26 Schepers 2012 (note 10), 31, 35-38.
27 Schepers 2012 (note 10), 35-40, 59. See also: Bewoners loven plastic huis 1964 (note 25), 3; and E.K.H. Wulkan, 'Experimentele woonhuizen van kunststof', in: E.K.H. Wulkan (ed.), *Kunststoffen en bouwtechniek*, Rotterdam 1970, 647-648.
28 'Fokker bouwt huis van plastic', *Het Parool*, 24 January 1964, 3.
29 Schepers 2012 (note 10), 31.
30 'Huizen van plastic zijn in opmars', *Het Parool*, 9 April 1968.
31 'Polyester woningen in gebruik', *Algemeen Handelsblad*, 18 November 1967, 4.
32 Polyester woningen 1967 (note 31).
33 'Woningen van polyester', *Algemeen Handelsblad*, 6 April 1967, 9. See also: Polyester woningen 1967 (note 31).
34 'Nog geen aftrek voor woningen van kunststof', *Trouw*, 10 December 1968, 5.
35 'Plastic-huizen-bouwer Pieter Oegema: "Je kunt er best een sigaret opsteken zonder dat er een bobbeltje in komt"', *Tubantia*, 8 January 1971, 7.
36 '"Halve meloen" aan Friesestraatweg', *Nieuwsblad van het Noorden*, 30 October 1970, 5.
37 Huybers 1975 (note 3), 27-31. See also: Halve meloen 1970 (note 36), 5, and Plastic-huizen-bouwer 1971 (note 35), 7.
38 'Wie levert welke kunststoffen in de bouw?', *Patrimonium* 94 (January 1983) 1, 27.
39 'Vliegende schotel', *Het Parool*, 18 September 1972, 7.
40 This can be seen for example in the picture published on page 29 of a special 1975 edition of *de Architect* about plastics in construction: Huybers 1975 (note 3), 27-31.
41 Vliegende schotel 1972 (note 39), 7.

42 Huybers 1975 (note 3), 27-31.
43 'Kunststof-bungalow van werf', *De Tijd. Dagblad voor Nederland*, 6 April 1972, 13.
44 'Kunststoffen huis trekt veel bekijks', *Trouw*, 6 May 1972.
45 Kunststoffen huis 1972 (note 44).
46 'Gemini in Vianen', *Het Parool*, 18 September 1972, 7.
47 Kunststoffen huis 1972 (note 44).
48 J.F.M. Kees, 'Kantoorgebouw te Heerlen', *Bouw* 20 (1972) 26, 902-903.
49 E. Hollman, 'Een nieuw leven voor de tieten van Berta?', *Zuiderlucht* 2 (2008) 8, 10-11. See also: C.J.W. Groot, 'Gevelelementen van glasvezelpolyester', *de Architect* 6 (1975) 7, 33-37.
50 Hollman 2008 (note 49), 10-11. See also: Rijckheyt, Centrum voor Regionale Geschiedenis, Heerlen. Entry 507 Collectie Bisscheroux.
51 J. Niesten, 'Van polyester naar polycarbonaat. De lange weg naar industrieel vervaardigd gevelelement', *de Architect* 19 (1988) 2, 95-101.
52 M. Eekhout, 'Sandwichplaten en architectuur', in: *Sandwichpanelen*, symposium organized by TU Delft on 1 December 1993, 1-16, 1-18.
53 Eekhout 1993 (note 52). See also: M. Eekhout, *The making of architecture. Afscheid van prof. Ir. Jan Brouwer 17 november 2000*, The Hague, 2000, 6-7.
54 Architectenbureau J. Brouwer N.V., 'Distributiecentrum in Vianen', *Bouw* 27 (1972) 20, 713.
55 Bouwcentrum, 'Gevelelementen van kunststof: rapport no. 4785', Rotterdam 1975, 110; 'Kunststofgevel in Zwijndrecht', *Plastica* 30 (1977) 5, 136; 'SBC-Verwaltungsgebäude in Zwijndrecht, Niederlande', *Bauen + Wohnen* 32 (1978) 11, 437.
56 J.-W. Schneider, 'Nieuw gemeentelijk monument: het voormalige SBC-kantoorgebouw', *De Brug* 13 (2018) 33, 3.
57 P. Koster, '"Foeilelijk" gebouw plots monument', *AD de Dordtenaar*, 20 June 2018, 2. See also: Schneider 2018 (note 56), 3.
58 Huybers 1975 (note 23, 27-31.
59 Bewoners loven 1964 (note 25); Kunststoffen huis 1972 (note 44).
60 Voigt 2007 (note 2), 7.
61 Koster 2018 (note 57), 2.
62 Vereniging Hendrick de Keyser, 'De Shelter Kor Aldershoff – lange versie', accessed 27 July 2023, www.youtube.com/watch?v=xag9BnaYvSs&t=2s.
63 Vereniging Hendrick de Keyser 2023 (note 62).

During her bachelor degree studies in the History of Art at the University of Amsterdam (UvA), S. DUISTERS BA specialized in the history of architecture and cities. She is currently pursuing a master's degree in editing at the UvA, focusing on how language can be used to make the history of art and architecture more accessible for the general public.

PLASTIC DREAMS

FACADES OF FIBRE-REINFORCED PLASTIC (FRP) IN THE NETHERLANDS

SARA DUISTERS

In the wake of the Second World War, architects and construction companies in the Netherlands started to experiment with the use of fibre-reinforced plastic (FRP) in architecture. At the time this combination of polyester and fibreglass, which is strong, malleable and lightweight, was seen as an ideal building material. Yet to date very little research has been carried out into the use of FRP in Dutch architecture. This article investigates the social changes that prompted architects and construction companies to experiment with FRP.

After the Second World War various factories in the transport industry were keen to find new markets for their expertise with FRP. They found them in housing construction. The plastic material was eminently suited to system building, a process that speeded up the construction of much-needed housing. Thanks to its high load-bearing capacity and factory production, FRP was ideal for the sandwich panels used in this construction method.

Another factor in FRP's favour was the prevailing sense of optimism about the future in the Netherlands in that period. Architects were considering new, flexible forms of living and the designs they produced gave residents the freedom to organize, extend and even relocate their dwelling. Some architects also felt that the outward appearance of buildings should change – that a new era demanded new forms. Buildings should express an optimistic view of the future, and for that FRP, which could be produced in a wide range of shapes and colours, was ideal. Until 1973, that is, when the global oil crisis caused the price of oil to rise so steeply that the use of FRP in large-scale housing projects ceased to be cost-effective.

Many of the buildings containing FRP have since been demolished. The earliest examples were often experimental prototypes, one-off structures not intended for long-term occupancy. Plastic never became really popular as a building material for housing; people were reluctant to exchange their solid brick or concrete dwellings for a plastic version.

Fast forward to today and the restoration and preservation of buildings constructed with FRP is problematical since the relevant expertise is still lacking in the heritage sector. Nonetheless, interest in plastic architecture is growing, accompanied by an emphasis on preservation rather than demolition. This new approach is a corollary of the increasing interest in post-1965 architecture. The negative image of FRP is gradually starting to change.

SCANT HOPE OF AN UNTROUBLED OLD AGE

THE FATE OF POST-1965 BUILDINGS

BERNARD COLENBRANDER

The post-war British 'new towns' are a familiar reference point in Dutch architectural courses. Intended to relieve some of the pressure on the London metropolis, their realization became a testing ground for the viability of many of the principles in the modernist repertoire – not just in relation to the quality of the housing, but also to the spatial planning of the entire estate. In addition to garden-city comfort, the new towns were required to provide a good amenity infrastructure and efficient access for the various traffic flows. Most of the new towns sprang up in an outer ring around London, but there were a few northern outliers. It was to one of these, Runcorn New Town near Liverpool, that a group of Delft architecture students headed in the early 1990s.[1] They were keen to see what had become of the Southgate housing estate designed in 1967 by Sir James Stirling (1926-1992). Stirling had managed to create an eloquent architecture, made up of raw, precast concrete modules cleverly arranged into a totality. The ground level was reserved for green space and vehicular traffic, while pedestrians had their own dedicated 'street in the sky'.

The Southgate Estate, completed in 1976, was not just the epitome of a modern living environment. For those in the know, Stirling's architecture contained ample references to English architectural history: the dimensions of the courtyards, for example, referred to the Georgian squares of Bath and Edinburgh. Reasons aplenty, therefore, for the Delft teachers and students to head to Runcorn. But they were in for a rude awakening. The Southgate Estate was no more, unexpectedly demolished so it seemed, despite its young age. 'It was

◄ 1. The Ministry of Social Affairs and Employment building appropriated for informal use, 2023 (photo Herman H. van Doorn GKf)

clear,' wrote François Claessens after having recovered somewhat from his initial dismay, 'that the privatisation that had prevailed in Britain under the Thatcher regime had limited to less than twenty years the lifespan of this collective housing project that had been achieved with great ideals, effort and investment, even before it had been written off financially.'[2] The same thing could easily happen in the Netherlands, too, Claessens added, alluding to the fate of the Bijlmermeer and, even more drastic, that of the Zwarte Madonna. Much praised upon its completion in the 1980s, this contribution to Dutch housing had scarcely reached puberty before it was torn from life. Not long after this, a stone's throw away in The Hague, the death knell sounded for another piece of Dutch architectural history when the Nederlands Danstheater, a sublime early work by Rem Koolhaas, was also prematurely euthanized. It involuntarily made way for the banal facadism of the Amare complex that is indisputably much less likely to qualify for any kind of heritage status.

UNSTOPPABLE DEMOLITION FRENZY

These are not exceptions. The prospect of surviving to a ripe old age is depressingly low for recent buildings, and that is equally true of buildings born of architectural pretensions. Structural robustness does not necessarily increase the chances of survival, as I experienced first-hand almost twenty years ago when I embarked on a monograph of a contemporary architect I had come to admire greatly: Frans van Gool (1922-2015). The excursion programme I had put together for a day out in the company of Van Gool included a building that had seemed to me to be indestructible: the solidly constructed brick and concrete Phoenix office building in Amersfoort (1972-1980). But Van Gool swiftly disabused me; I could scratch that item from our programme because I was too late. That building, too, was no more.

It seems as if nowadays *every* building is regarded as ripe for demolition, regardless of age, structural condition or architectural quality. As soon as the idea that it is 'in the way' has taken hold, its chances of being razed are considerable. As unreasonable as this demolition frenzy is, it is consistent with a line of reasoning rooted in the functionalist fixation with a presumed fitness for purpose that was very much in the ascendant last century. 'In a perfectly functioning state, according to the precepts of functionalism, buildings would either fulfil their purpose or be demolished, except perhaps for a few exceptions,' wrote Fred Scott in his admirable book, *On Altering Architecture*. He then followed this reasoning to its predictable conclusion: 'Alterations would be unknown. Through forethought and prescience, buildings would remain unchanged from the moment of their inception to their eventual demise.'[3]

That is lucidly expressed, yet the everyday world does not always behave according to this simple outline. There are exceptions to the rule; sometimes there is also scope for alterations and there turn out to be more options for a building than to stay exactly as it was built or to be knocked down. Contrary to functionalist doctrine, a building is not by definition a perfectly homogeneous answer to a perfectly homogeneous question, which can never afterwards be altered. The use can change, the aesthetic mood can undergo a sea change and the building may opt to adjust to that.

THE PERMANENCES OF THE CITY

To get closer to the various possibilities resulting from such a willingness to change, a building's resilience needs to be subjected to a more nuanced investigation than that prescribed by functionalist dogma. One well-known diagram that attempts to do justice to a broader tolerance of alteration was devised by Stewart Brand. It distinguishes the various layers of a building according to their alleged capacity for change.[4] All the loose fittings in the interior of a building (*stuff*) are by definition interchangeable; the interior layout (*space plan*) is less accommodating and that also applies to the *services* and even to the cladding (*skin*) of a building, while the plot of land (*site*) is pretty well eternal. The underlying idea is that potentially, each layer has a different lifespan.

This diagram is considerably subtler than the previous functionalist all-or-nothing plan, but even this assumes the reasonableness of doing whatever one wants with a building as long as the functional issue is meticulously analysed, layer by layer. But it is no longer always easy to predict how that reasonableness will turn out. There are plenty of examples of buildings that have perished in the wake of a capricious decision-making process devoid of any semblance of logic. Human nature is inconstant and that carries over into how buildings are treated.

This is why cultural explorations of the same issue sometimes get closer to reality than the supposed 'rocket science' of deterministic functionalists. Culture encapsulates not just logical reasonableness, but the entirety of affective tendencies, including ostensibly less productive variants. Aldo Rossi is a fitting reference in this context, if only because of his definition of the city as the *fabbrica della città* (the buildings that make up the city) referring both to the material manifestation of the city form and to the cultural project that sustains interaction with that form. Rossi regards the city – and thus the building – as an 'interrupted work': 'With time, the city grows upon itself, it acquires a consciousness and memory. In the course of its con-

struction, its original themes persist, but at the same time it modifies and renders these themes of its own development more specific.'[5] It is precisely through the activity of the phenomena of consciousness and memory of which Rossi speaks that the city can behave and be understood as a cultural project.

Anyone who finds this somewhat vague and undefined should dip a little further into Rossi's legendary book about the city. The cultural project is not some airy-fairy notion for Rossi; it is supported by permanences, also referred to as 'primary elements', by which he means the sustaining, essential buildings of the city. Rossi's primary elements initially correspond with the historical institutional and religious buildings that through their size and status alone once dominated the structure of the city and to some extent continue to do so today. More generally, with the late-modern era in mind, primary elements can be explained as permanences in the city that can serve as monumental reference points for the urban organism, provided they are viewed and cherished as such by the community and civic authorities. Viewed in this way, the memory of the city is both mental and material.

UNPREDICTABLE SURVIVAL PROSPECTS

It is with the possible guise of these mental and material permanences in mind that thinking about heritage actually starts, including heritage from the last fifty years. Deciding which buildings merit permanence has traditionally been the core task of institutional heritage preservation. The gradual dominance of a lower echelon of functions than that of the classic institutions and churches is an inevitable side effect of contemporary architecture. Selection is a direct consequence of searching for permanences, less in terms of functional performance or functionalist merit, than of appreciation, if need be in the most subjective sense. However, the inexorable transience of even the most permanent permanence demands a credible estimate of a building's capacity for adaptation over time. Only then is it possible to assess just how robust the line of defence needs to be, ranging from impregnable to elastic, when the continued existence of selected buildings hangs in the balance. Stewart Brand's diagram is a good first step for such an evaluation, but no more than that because it focuses solely on the material layers.

A more detailed approach to the same issue recently became available with the publication of Ruurd Roorda and Bas Kegge's *Vital architecture*.[6] In this study the future prospects of buildings are assessed in a comprehensive system of considerations, divided into three chapters: economy, architecture, culture. Whatever its heritage status, every building appears in some form of financial accounting, making economics an inescapable factor in the life span of a building. It represents a certain land value that, together with graduated depreciation, can push a decision about a building's future in a particular direction, be that adaptation, conservation or demolition. Following on from that, architectural considerations can help to determine whether the building in question lends itself to a different use and whether it can if necessary be extended. The cultural aspect, finally, includes assessing the ramifications of the building's official or non-official heritage status.

Roorda and Kegge's research has yielded a useful checklist for evaluating a building's chances of survival. Sadly, that does not mean that much predictive value can be ascribed to it. A high land value *may* make it more likely that a notable historical building will be replaced by another, but it is no hard and fast rule. The fact that a building can be extended *may* prove an advantage in the case of adaptive reuse, but that too offers no guarantee of survival, any more than a robust materialization. Many readily extendable buildings have vanished without ever being extended, just as many durable buildings never had the chance to wear out. The only more or less reliable criterion for survival is to be heritage listed. Anyone who conceives a plan to demolish an official heritage building can be assured that the relevant authorities are not going to wave it through uncontested. In practice this carries more weight than the fact that the building is very robust or is otherwise architecturally meritorious, but without official protected status. *Any* building can bite the dust.

NEUTRALITY CRITERION

In reality, an object that is deemed a cultural permanence, cannot take that status for granted. Architecture is a social applied art, not an art that in benign isolation can, if necessary, fall into oblivion without perishing. The unremarked magnification of one aspect of this applied function of architecture during the late-modern era has served to accentuate its transience. In the past a building was a durable, materially solidified function, whereas today it is more of a neutral service, in other words a 'commodity'. This is related to the waning significance of the classic typological system that distinguishes between houses, palaces, offices and factories. In today's service economy the clear-cut definition of these categories is eroding: for the most part, work no longer takes place on farms or in factories, each with its specific function-dictated spatial arrangement, but in settings that adhere to more or less the same comfort and safety requirements as a dwelling.

The homogenizing trend extends to interiors, where spatial efficiency requirements and a diminished

sense of staff hierarchy signalled the end of the traditional office layout. Today's office floor has very few space dividers and consists mainly of furniture. In dwellings, the time-honoured distinction between kitchen and rooms is less frequently defined by a wall, hallway or serving hatch. Spatial interiors are in principal neutral and 'multifunctional', in the contemporary, homogenizing sense of that term. It is with good reason that 'flexibility' has become a keyword and a fixture of real estate speak and the jargon used by architects and builders: it is often the essence of a building and there is nothing else to be said about it than that it is suitable for all manner of uses.

THE HERTZBERGER CASE

The expectations that attach to a building nowadays make themselves felt not only in new-build programmes, but also in the approach to existing buildings. To the extent that those existing buildings bear the hallmarks of classic typology, their resilience will be sorely tested, because a purpose-designed building cannot turn into a flexible-use 'commodity' just like that. Nevertheless, many historical churches and industrial artefacts have in fact been relatively easily converted to accommodate a wholly alien programme from the leisure economy. Such conversions are socially acclaimed as a demonstration of successful heritage preservation, even though the credibility of the contrived tableau is by no means always convincing.

With buildings of more recent date, not least those of the Post 65 generation, where the shift to a programme of maximum flexibility was often already evident, the adaptive capacity should be greater. The reality is complicated, however, even for Post 65 buildings that were intrinsically programmed for change – and to illustrate that most acutely, we must now mention Herman Hertzberger (b. 1932). Of all Dutch architects Hertzberger, who acquired an international reputation in the 1960s by ostentatiously devoting himself to a functionally flexible architecture, has suffered the most as he and his buildings approached old age. This was not yet the case with his Muziekcentrum Vredenburg in Utrecht because that building had been designed specifically as a concert hall and consequently represented a traditional typology. The original Vredenburg was completed in 1979. Forty years later, after a drastic renovation directed by none other than Herman Hertzberger himself, it was embedded in the Tivoli-Vredenburg music complex. While the large, octagonal Vredenburg hall was once the climax of an approach from the centre of Utrecht spun out with many architectural details, in the revised version this same hall became a large, albeit still brilliantly designed piece of furniture in an arbitrary spatial arrangement of halls with an indifferent exterior. The fact that the concert hall itself, in rudimentary form, was able to be preserved, nevertheless illustrates what permanence may ultimately mean for a building: it is impossible for architecture to be more decisively compromised.

CENTRAAL BEHEER

Another major Hertzberger work is the slightly older office building for Centraal Beheer in Apeldoorn (1968-1972). What this building has endured over the years encapsulates everything revealed above. The history of use is a drama with plot twists no functionalist doctrine is proof against. Centraal Beheer came about thanks to a client who was not daunted by a highly unconventional office setting, structured by clusters of square office islands, separated by top-lit voids and connected by a circulation route consisting of bridges. At one stroke the classic office acquired a coherent successor whose main features started to find their way into the buildings of admirers near and far, helped by the fact that the building received copious press coverage. Together with the slightly older Burgerweeshuis in Amsterdam by Aldo van Eyck, Centraal Beheer became an icon of what came to be known as structuralism. However, because the concept of structuralism derived from outside architecture and had its origins in philosophy, there continues to be confusion as to what Van Eyck and Hertzberger actually meant by it. That irritates Hertzberger, all the more since an accurate explanation of structuralism is helpful in understanding why he put up a fight when the building's survival was threatened. '[W]hen it comes to structuralism, let's stop concentrating on the formal aspect of a distinctive structure. Structuralism is a concept that originated in linguistic philosophy where it stands for the relationship of language as a collective instrument that offers language users the freedom of personal interpretation,' Hertzberger wrote recently. 'Structuralism in architecture relates to a spatial framework where not everything is programmatically laid down in terms of functions, but where freedom is allowed for the filling-in of additional uses, so that a building can adapt from place to place to what is needed from time to time and thus to new requirements.'[7]

This explanation not only clarifies why Hertzberger allowed the renovation of his Utrecht concert hall to reach such a painful conclusion but is also typical of his mindset during the erratic history of Centraal Beheer after it had become clear that the office islands, after thirty years of use, could not remain as they were. The trajectory has been graphically chronicled by Stephan Petermann in *Back to the Office*, a recent book co-edited with Ruth Baumeister.[8] The future of Centraal Beheer has hung in the balance for over fifteen

years during which time it has been subject to the disparate whims of a succession of owners and developers, with now and then a supporting role for the architect and the civic authorities.

ON THE ROAD TO RUIN

In 2007 Achmea, Centraal Beheer's mother company, sold the building to SNS bank and developer TCN, only to immediately lease it back: in real estate speak this is called sale and leaseback. Coincidentally, a year later the building was granted municipal listed status but that did nothing to alter the dramatic sequel. Achmea ended its lease as of the beginning of 2013 and moved into new premises elsewhere. The building remained largely empty. A year earlier one of the two owners, TCN, had succumbed to the credit crisis. Things were no better at SNS, which also went bankrupt, after which the property accrued to the State. Under the neo-liberal policies of the day that offered only temporary relief since that same State was busy selling off its properties wherever possible. Centraal Beheer, at that moment valued at 38 million euros, fell into the 'wrong basket'. In 2015 it was put up for sale, finding a new owner in development company Certitudo, which was able to acquire it for the trifling sum of 2.5 million euros. During the period when TCN was still in the picture, there had been talk of adapting the building to accommodate the Saxion University of Applied Sciences, but it came to nothing. As soon as Certitudo took over, any such prospect disappeared. It is hardly news anymore that 'location' is regarded as crucial to the success of a development project: a large, empty, high-maintenance building in Apeldoorn is not exactly an asset. That also explains the glaring disparity between 38 and 2.5 million. Certitudo had previous experience with the Strijp-S site in Eindhoven where it had discovered that there was still a lot of money to be made by adapting old buildings for start-ups. That was more complicated in Apeldoorn. While a lack of tenants and vandalism were slowly turning Centraal Beheer into a ruin, Certitudo consulted with Hertzberger on viable solutions. The cluster plan did not lend itself readily to housing since there was too much interior for too little external facade. Variations were devised in which the plan evolved into four entities separated by a passageway, at least one of which could be converted for office functions. Efforts to produce marketable and lettable dwellings continued, but this entailed major alterations to the plan and the materialization. It was also self-evident that numerous thermal bridges would have to be eliminated.

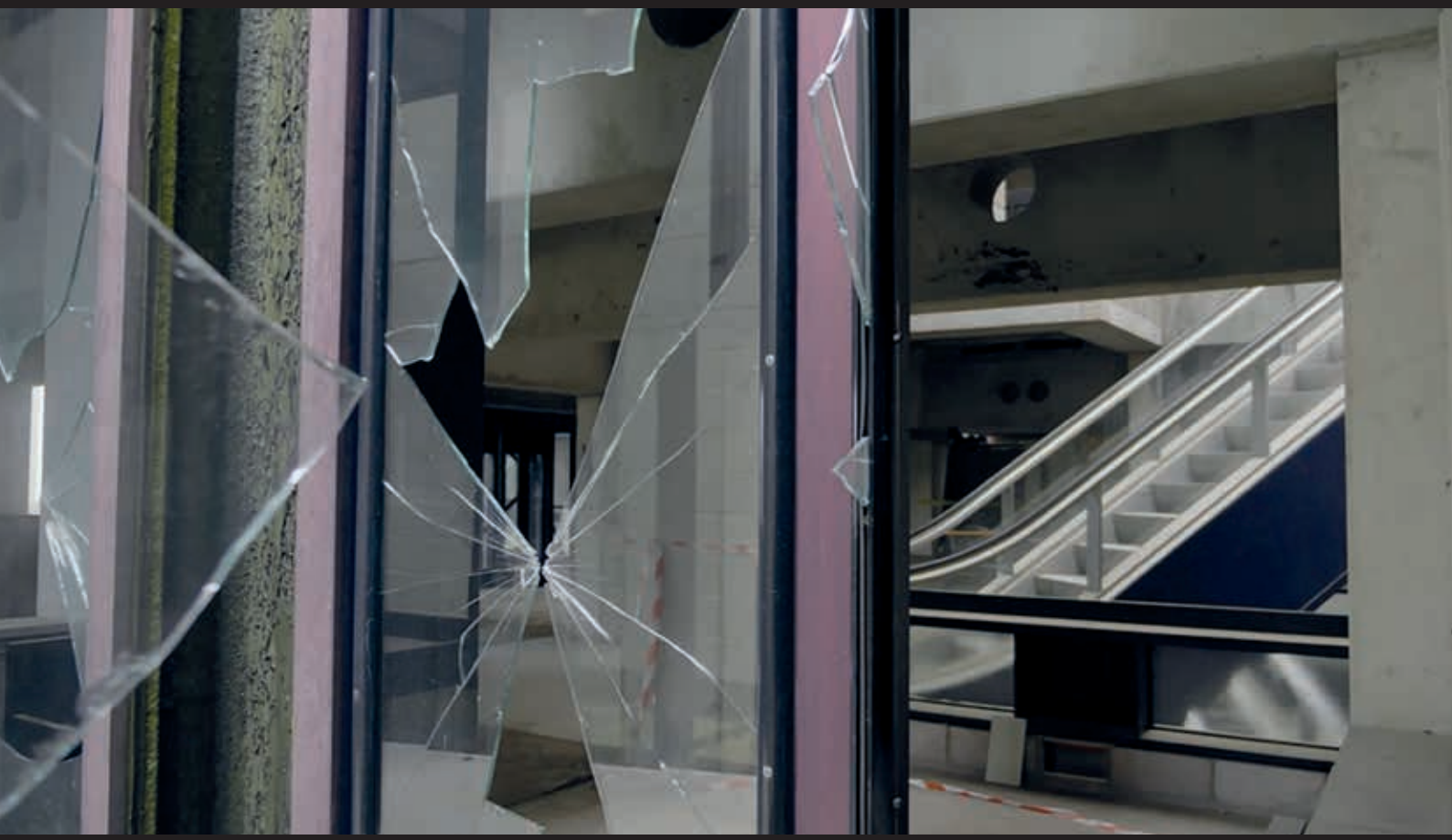
An outcome remains out of reach, the more so since Certitudo, too, was subject to commercial setbacks and has since been declared bankrupt: stalemate. For the time being a stalemate is better than implementing a plan that is neither architecturally nor commercially fully worked out. It is an indication of the degree of complexity of this challenge. National listed status might help: it was an important factor in the preservation of Van Eyck's Burgerweeshuis, although that permanence occupies a prime site, and the surface area is five times smaller.

A MINISTRY IN THE HAGUE

The truly remarkable aspect of the long Centraal Beheer redevelopment saga following the sale and leaseback, is Herman Hertzberger's apparently infinite forbearance, never deviating from the ideological line that a building is a generic framework without any definitive programmatic specification. He stuck to that, even when it was abundantly clear that the material integrity of the original was suffering as a result. While the fate of Centraal Beheer remains chronically unresolved, the future of another major work by Hertzberger, the twenty years' younger Ministry of Social Affairs and Employment in The Hague (1979-1990), is looking shaky. In the dying days of the last century and without paying any heed to the fundamentally decentralized composition of The Hague's street plan, the State decided to bring all government ministries to the would-be city centre around Het Spui. The ministerial buildings outside this area, including the Ministry of Education, Culture and Science in Zoetermeer, were abandoned, and so too Hertzberger's still youthful building for Social Affairs, located close to the Laan van Nieuw Oost-Indië railway station on the outskirts of The Hague.

In line with the prevailing neo-liberal ideology, the building was put up for sale and acquired by the developer Vorm acting together with MeyerBergman Erfgoed Groep, successor of the development company previously known as MAB. In the 1990s MAB had been the developer who initiated De Resident, the key project in a plan to provide The Hague with a credible centre. The new owner, who paid 23 million euros for the 56,000 square metre ministry building, was doubtful that this expenditure would pay off if the existing building had to be retained, however young and robust it might be. Assuming that the net-to-gross ratio of the volume of the Social Affairs building did not readily lend itself to conversion to housing – comparable to Centraal Beheer – demolition was definitely on the cards. A succession of plans for replacement new-build were presented by UNstudio, Rijnboutt and Barcode

► 2. Centraal Beheer in dilapidated state and Herman Hertzberger draws the transformation of Centraal Beheer, 2023 (still from the documentary *The Proof of the Pudding* van Herman Hertzberger by Patrick Minks, Jaap Veldhoen and Wouter Snip)



while a fuming Hertzberger watched from the wings.

In light of the recent sharp rise in building costs, the business case for housing on this site is far from compelling, at least so long as The Hague sticks to its mandatory benchmark of forty per cent social housing for housing developments. In this case that would result in dwellings with a surface area of around thirty square metres. Meanwhile, in the reality of everyday practice, Hertzberger's claim that a building like this is a spatial framework that lends itself to more uses than just the original has shown to be plausible. The Social Affairs building has been successfully appropriated by new groups of users: start-up businesses, students and residence permit holders, all gathered around the large atrium. A short-term outcome is uncertain here, too, but Hertzberger tirelessly continues to insist that components of the building, in particular the structural members, still have decades of life left in them.[9]

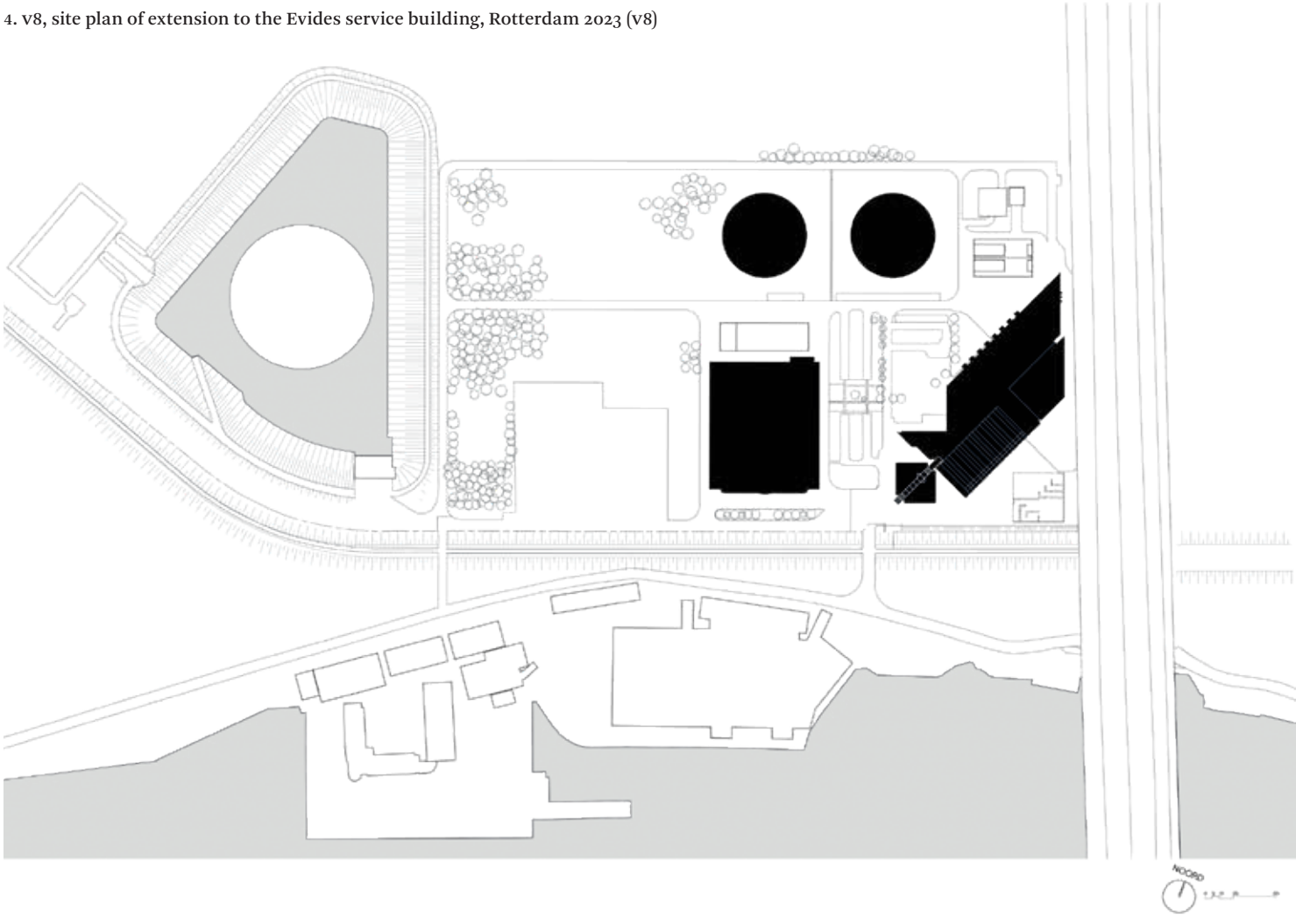
◄ 3. The Ministry of Social Affairs and Employment building appropriated for informal use, 2023 (photo Herman H. van Doorn GKf)

THE QUIST CASE

Centraal Beheer and the Social Affairs ministry have each in their own way become a major headache for all those involved in their fate. The architect might have acknowledged the theoretical alterability of his buildings, but that does not mean that they really *are* alterable. On top of that there is the extreme capriciousness of the social process, with the possibility of listed status as the only remedy against an unpleasant end. It is, as previously observed, typical of an architectural culture in which buildings have become commodities. But there are exceptions to that culture, including for post-1965 buildings with clear heritage status potential.

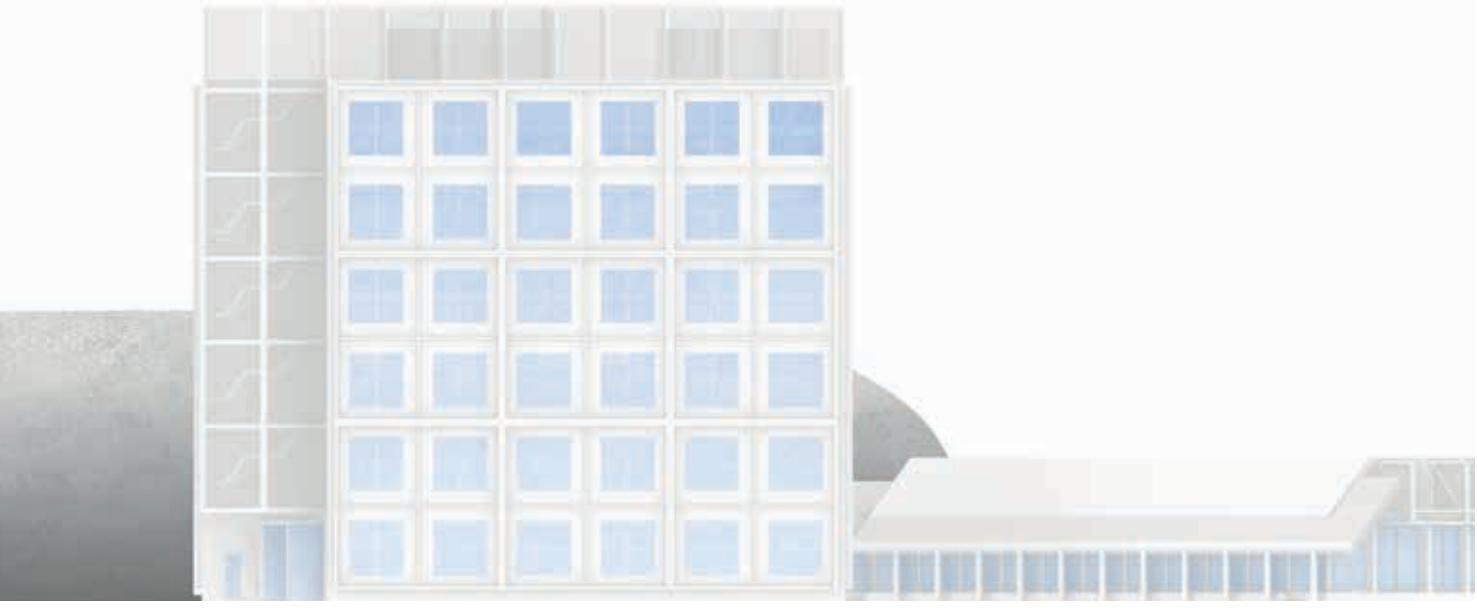
The oeuvre of Wim Quist (1930-2022) was forged under a different ideological star from that of Herman Hertzberger and this had a direct effect on what happened to his buildings as they aged and became susceptible to the pressure to adapt. Quist most emphatically did not see his buildings as a spatial framework that could be varied at will later on, depending on new functional demands. Change might not have been excluded in advance, but the idea underpinning his designs was that the buildings were complete in them-

4. V8, site plan of extension to the Evides service building, Rotterdam 2023 (V8)



5. V8, entrance of extension to the Evides service building, Rotterdam 2023 (V8)

6. V8, south elevation of extension to the Evides service building, Rotterdam 2023 (V8)



selves and consequently not amenable to tinkering. Anyone who tried that on without consulting Quist could be sure of provoking his ire. This is what happened to the Evides water company when it wanted to add a new office building to the waterworks complex Quist had designed at the foot of the Brienenoord bridge in Rotterdam for the Kralingen water company (1973-1977).

The famous tear-shaped water reservoirs and filter plant would be unaffected by the envisaged extension, but in the instructions provided in advance a modest triangle diagonal to the end of the existing service building had been allocated for a possible extension. A European tender organized by the company was won by the Rotterdam architects, v8. Quist was not informed until mid-2020, after the tender had wound up and the winner had produced a preliminary design. He was livid. He was affronted not to have been consulted, but also infuriated by what he saw as the spatially misconceived choice of a triangular volume, by the architectural effect of that choice, and by the connection between the new volume and the existing building. In autumn 2021 Quist applied for an interim injunction against Evides, which was successful insofar as it eventually resulted in a conversation between Quist, Evides and architect Michiel Raaphorst of v8.[10] At Quist's request Floris Alkemade, who had just stepped down as Government Architect, acted pro bono 'to search for a possible solution from an independent position'.[11] Under Alkemade's mediatory guidance the initially frosty relations started to thaw. The parties gradually reached agreement on the idea of connecting the extension, in the form of a diagonally positioned cube, to the existing building via a narrow intermediary section.[12] A rapprochement was achieved, with everyone's autonomy remaining intact. Quist died in the summer of 2022; Alkemade carried on with his mediation activities until mid-2023 by which time the design had attained an almost Quist-like serenity and could be prepared for presentation to the Rotterdam Design Review and Heritage Committee.

Quist's own design exercises, applied to recognized heritage buildings, reveal that it was impossible for him to capture the essence of the original. This was true, for example, of the extension of the Kröller-Müller Museum in Otterlo (1970-1977) and the renovation of the Rijksmuseum in Amsterdam (1981-1990). Given his own character, there was only one option open to him: apply his own distinctive style down to the last detail. Cultivating mutual respect is an approach that yields results in circumstances where neither the survival nor the related function of the relevant primary element is in question. This befell Quist and he behaved accordingly. The v8 architects and their client gradually assimilated what they had experienced here. As for the 'commodities', which are expected to respond anew to every corporate impulse by adapting to a changing reality, the problem is more serious and more urgent. Mutual respect cannot be taken for granted here and the existing building is quite simply expected to acquiesce or, in the last instance, make way. This was what befell Hertzberger and what determined his agenda for many years. That agenda could well symbolize the effort that is also required of others on behalf of post-1965 heritage.

NOTEN

1 F. Claessens, 'In memoriam Runcorn', *Oase* 57 (2001), 104-117.
2 Claessens 2001 (note 1), 104.
3 F. Scott, *On Altering Architecture*, Abingdon 2008, 1.
4 S. Brand, *How Buildings Learn*, London 1994.
5 A. Rossi, *The architecture of the city*, Cambridge 1982 (1966), 21.
6 R. Roorda and B. Kegge, *Vital architecture. Tools for durability/Vitale architectuur. Gereedschap voor levensduur*, Rotterdam 2016.
7 H. Hertzberger, unpublished text 'Van "werkplaats voor 1.000" naar overdekte ministad', 2 December 2021. Made available to the author by AHH office.
8 R. Baumeister and S. Petermann, *Back to the office. 50 revolutionary office buildings and how they sustained*, Rotterdam 2022, 388-399. Information gleaned during an interview with Herman Hertzberger and Laurens-Jan ten Kate, Amsterdam 1 June 2023.
9 AHH, *SoZaWe. De toekomst van het voormalige gebouw Ministerie van Sociale Zaken. Poort naar de stad*, Amsterdam 2021.
10 Injunction judgement 5 November 2021, Court of Rotterdam case number C/10/621627 / KG ZA 21-584.
11 Conversation notes of Floris Alkemade, d.d. 22 December 2021, shown to the author. Interview with Floris Alkemade, Sint-Oedenrode, 30 May 2023.
12 Interview with Michiel Raaphorst and Frank Huibers (v8 Architects), Rotterdam 22 June 2023.

EM PROF DR B. COLENBRANDER was professor of Architectural history and theory at Eindhoven University of Technology from 2005 until his retirement at the end of 2022. He was a member of the board of the Sikkens Foundation until 2023. He has served on the board of the Royal Netherlands Society of Architectural History (KNOB) since 2019 and in 2020 he joined the Integrale Kwaliteitskamer (Integrated Chamber of Quality) in Antwerp as an adviser to the City Architect.

SCANT HOPE OF AN UNTROUBLED OLD AGE

THE FATE OF POST-1965 BUILDINGS

BERNARD COLENBRANDER

Buildings completed after about 1964 cannot count on surviving into old age, however robust some of them may still be. Any building can perish, irrespective of age, structural condition or architectural quality. Once the idea that a building is in the way has taken hold, its chances of being torn down are considerable. All the more the building has lost its original function. This essay takes the position that the functionalist fixation on fitness for purpose has fed through into the way existing buildings are treated and the intellectual reflection on that. Take Stewart Brand's famous diagram. It distinguishes the various material layers of a building according to their different lifespans, yet that is no guarantee that those lifespans will be respected in practice: a building is by no means always treated justly, let alone the material lifespan of the different layers of a building. Nevertheless, for anyone devoted to the city as cultural project, there is still Aldo Rossi's renowned theory regarding a city's 'permanences' of cultural value. The lifespan problem of more recent architecture is amplified by the fact that buildings are increasingly categorized as a neutral amenity, in other words, a commodity. As such, they can be manipulated at will and without taking account of any architectural merits they may possess. Two highly regarded buildings by the architect Herman Hertzberger have struggled to survive in recent years: the Centraal Beheer offices in Apeldoorn (1968-1972) and the Ministry of Social Affairs in The Hague (1979-1990). Although both buildings were designed to be functionally flexible, that has not rendered them proof against the whims of the real estate market: the survival of both buildings is still on the line in 2023.

Paradoxically, the second case study presented in this article is more hopeful, even though it concerns a building that was most certainly not designed to be adaptable. It is the office of the Kralingen water company in Rotterdam (1973-1979) by Wim Quist. While the initial idea for the extension of this building gave rise to conflict, mediation eventually produced an architecturally convincing solution acceptable to all the parties involved, including the original architect.

VALUE ASSESSMENT OF YOUNG HERITAGE

THE IMPORTANCE OF MATERIALITY IN AN INTEGRATED APPROACH

MARYLISE PAREIN, INE WOUTERS AND STEPHANIE VAN DE VOORDE

'Preservation is overtaking us.'[1] In 2004 Rem Koolhaas asserted, in his typically provocative manner, that the buildings we are protecting are getting progressively younger: at the beginning of the nineteenth century the age of heritage was around two thousand years, by 1900 that had been reduced to two hundred, while at the last turn of the century quite recent buildings were being recognized or protected as heritage, like OMA's Villa Lemoine in Bordeaux – completed in 1998, listed in 2002.[2] Although Villa Lemoine is an exception, we indeed see a trend towards ever shorter historical distances to heritage objects.[3] But how should we deal with that 'young heritage'? While Koolhaas proposes a somewhat ad hoc approach, we underscore the importance of a scientific framework.

◄ 1. ASLK office building in Brussels, elevation on Broekstraat (photo W. Kenis, urban.brussels 2021)

Three aspects are of particular relevance: what do we mean by the term 'young heritage', how do we determine the value of that young heritage, and what expertise is required to recognize its specific qualities?

This article considers these three questions. In the first part we look at how the term 'young heritage' is interpreted and what is specific to it. We focus in particular on materiality as one of the properties that make it not only relevant but also essential to pay special attention to young heritage within the wider heritage field. The second part focuses on the methods and instruments employed in the assessment and protection of young heritage in the Brussels-Capital Region, again with particular attention to materiality. Interest in young heritage has increased in Brussels in recent years; a new assessment method introduced in 2021 is also being applied to recent objects. In addition, in-depth research is being conducted on the relation between the heritage value and materiality of young heritage.[4] Therefore, in the third part the importance of materiality in young heritage is examined in detail with reference to two projects that have been included in the Brussels Inventory of Architectural Heritage. Highlighting the importance of expertise with the materials used, we argue for a more integrated approach to materiality aimed at recognizing the specificity of young heritage.

YOUNG HERITAGE

The question of how young architectural heritage can be is not easily answered.[5] The (minimum) historical distance for a building to be recognized or listed as heritage differs from country to country, and even from region to region. Moreover, theory is not the same as practice: the minimum age applied in practice is often an unspoken rule of thumb rather than an official administrative rule. In Flanders, for example, thirty years is the (unofficial) benchmark, whereas in the Walloon provinces there is no age limit. There is no strict minimum age in Brussels either, but an analysis of post-1945 listed buildings yields an average age of fifty years.[6] Recent years have seen the emergence of an international debate about 'young heritage' in which various terms have been used, including 'recent heritage', 'modern heritage' and 'Post 65 heritage'; only the last entails a specific time span (1965-1990).[7] There is no consensus on the application of a minimum age. Some heritage experts argue for a minimum historical distance on the grounds that it is indispensable for positioning a building within the historical context and the architect's body of work.[8] Others, keenly aware of the vulnerability of young heritage, are opposed to a minimum age.[9] There are legitimate arguments for both standpoints: rather than opposing views, they represent two conditions or parameters that are related to each other.

Young heritage is indeed vulnerable. Valuable buildings are being radically renovated or even demolished, often in response to increasingly strict energy performance requirements, before it has been possible to assess their value.[10] Sensitization and greater recognition of the specificity of young heritage are consequently essential. That recognition must, however, be based on extensive expertise, supported by both primary and secondary sources on the built object and its position in the wider context. Yet, the availability and reproduction of such extensive expertise is not evident. As *Conserving Twentieth-Century Built Heritage. A Bibliography* makes clear, the main focus of most publications is on buildings dating from before 1970.[11] Buildings less than fifty years old are significantly under-represented. In the last few years there has been growing interest in late-twentieth-century architecture on the part of organizations like the Getty Conservation Institute, Icomos, DOCOMOMO and The Twentieth Century Society.[12] But all too often knowledge about the realization and conservation of that architecture is confined to specific buildings.

MATERIALITY AND ARCHITECTURE

Increasing the body of knowledge on young heritage is particularly crucial regarding its materiality. Materiality is not confined to building materials and techniques but relates to the broader building culture which, following Howard Davis' definition, encompasses the complex and coordinated system of people, relationships, building types, knowledge, procedures, techniques, and habits that surrounds the building process.[13] In *The Materiality of Architecture*, Antoine Picon emphasizes the importance of materiality in a broader sense. He argues that the notion of 'materiality' applies not only to the material dimension or substance of a building or object, but is highly contingent on technical, economic and cultural factors, the availability of materials and machines, and the organization of labour. In other words, materiality is not a clear-cut concept, but strongly rooted in a wide historical context. As a result, different 'regimes of materiality' arise, related to a specific time and place.[14] The final decades of the twentieth century are also characterized by a specific 'materiality regime'. Building on the post-war emergence of new, innovative and complex building materials, a wide range of high-performance materials like high-strength concrete and high-efficiency glass were adopted.[15] Traditional materials like brick also made a comeback with numerous variations and improvements, and DIY materials entered into the market. At the same time, materials were being applied in specific ways (cf. the increasing popularity of the masonry cavity wall), which gave rise to particular

issues such as thermal bridges. Furthermore, regulations increased: the exponential growth of standards went hand in hand with ever higher performance requirements and the transition to EU-wide standards.

Given the importance of the concept of materiality for the architecture of the last decades of the twentieth century, it merits a special place in the recognition and value assessment of young heritage. This should not be limited to the absolute value or material properties (structural, chemical, technical, et cetera) in their original and present-day condition. It is important to also look at their relative value and positioning vis-à-vis the aesthetic, cultural, scientific, technical and socio-economic standards of the day (that is the then prevailing building culture or the materiality regime) in order to unveil its relationship with, for example, social, urban, and artistic developments and values. Therefore, several recent research projects in Belgium, the Netherlands and Switzerland have explicitly focused on the materiality of young heritage.[16]

In practice, value assessment methods often reduce the use of materials to experimentation with new materials and innovative construction techniques. Yet, calling for an interpretation of materiality that looks beyond the material substance or structural innovations when assessing young heritage, is not so unorthodox. One of the general principles of value assessment is that it is necessary to look both at the intrinsic value of the object itself, and at its value in relation to the context. We therefore look at how a broad approach to materiality can be implemented in current value assessments– like that employed in the Brussels-Capital Region.

VALUE ASSESSMENT OF BRUSSELS HERITAGE

In Belgium heritage is a regional competence; the Brussels-Capital Region thus employs a different method from the Flemish and Walloon Regions. In neither of the three regions a specific method for evaluating young heritage is employed. This begs the question of whether the 'regular' method and instruments are capable or appropriate to recognise the specificity of young heritage.

In the Brussels-Capital Region, three heritage statutes can be assigned: 'inventoried heritage' ["geïnventariseerd erfgoed"], 'heritage included in the safeguarding register' ["erfgoed ingeschreven op de bewaarlijst"] and 'listed heritage' ["beschermd erfgoed"].[17] Inventoried heritage is included in the Inventory of Architectural Heritage. Inclusion in the Inventory carries no legal or financial implications: it is simply a means to identify buildings with heritage value and can be a first step towards preservation or protection. The two other categories, 'heritage included in the safeguarding register' and 'listed , are heritage' both part of the Register of Safeguarded Heritage. Both statutes are permanently and legally binding, with a view to the preservation of the buildings concerned. This means that prior permission is required for any modifications, but what is then permitted differs: the status of listed heritage is very restrictive, whereas 'being included in the safeguarding register' allows for more flexibility.[18] Whereas inventorying and listing are standard instruments for recognizing and conserving heritage, the statute of 'being included in the safeguarding register' is unique to Brussels. It has been used since the late twentieth century for buildings where a strictly enforced protection might stand in the way of its continued use and preservation. For instance, in the case of office buildings that no longer meet contemporary energy and comfort requirements, certain conversions might be permitted provided they do not conflict with the heritage significance.

None of the three statutes entails a minimum age. Nevertheless, only four buildings dating from 1970 or later are safeguarded: the CBR office building by the architect Constantin Brodzki (Watermaal-Bosvoorde, 1970), the Longchamp swimming pool by Charles de Meutter (Ukkel, 1971), the rectorat building of the Vrije Universiteit Brussel by Renaat Braem (Elsene, 1974-1978) and student housing La Maison Médicale (La Mémé) by Lucien Kroll (Sint-Lambrechts-Woluwe, 1970-1982).[19] The Inventory of Architectural Heritage yields a better result for young heritage (c. 190 out of a total of 25,000 entries). Furthermore, the inventory also includes buildings realized in the 1980s and '90s.[20] However, given that Brussels has a total of some 195,000 buildings, 19,000 of which were built after 1971, young heritage is seriously under-represented in the Inventory as well. This can be partially explained by the method used in setting up the inventory: until recently, the only buildings realized after 1970 considered for inclusion were those of an exceptional nature that were also designed by a famous architect.[21] In 2021 these requirements for young heritage were abandoned. This amendment was in tune with the ambition of the current Brussels regional government (2018-2024) to put greater emphasis on inventorying and protecting post-war heritage.[22] Also worth mentioning in this context is the recent thematic inventory of architectural heritage from the period 1939-1999. This undertaking drew on a survey towards the general public, but more especially on a comprehensive academic survey supported by systematic field research.[23] The results of this exercise are currently being included in the official Inventory.

NEW ASSESSMENT METHOD

The new method that has been in use since 2021 for drawing up the Inventory of Architectural Heritage is based on ten heritage values (archeological, artistic, aesthetic, historical, landscape, social, urban design, technical, folkloric, scientific) and six heritage criteria (authenticity, contextual value, ensemble value, integrity, representativity, rarity).[24] While theoretically it suffices to meet one of the heritage values and one of the criteria to be included in the Inventory, in practice it usually involves a combination of several mutually reinforcing values and criteria. In addition, the value assessment is not based solely on intrinsic grounds; a comparison with similar buildings on several levels, from local to international, also needs to be carried out. Although the formulated values and criteria are identical to those that were already used for listing heritage, the various statutes work with different 'weights' for these criteria and values.

With respect to young heritage, additional 'discriminatory' conditions were dropped. In fact, the new method explicitly states that there is 'no time limit, so that even young architecture qualifies for inclusion in the inventory'. But does this offer sufficient possibilities for recognizing the specificity of young heritage? There are a few values and criteria that do not appear to apply to young heritage, such as 'archaeological value' and 'historical value'. Nor do 'rarity' and 'authenticity' seem particularly relevant: not only are there large numbers of young buildings, but many have already been renovated without regard for possible heritage values. On the other hand, the description of values and criteria does provide opportunities, allowing for a broad interpretation and nuanced application geared to the specific characteristics of the type of heritage under consideration. So the values mentioned above may after all play a role. For instance, historical value can be assigned, even to young heritage, if it 'bears witness to a special period in the history of the region or municipality'. The historical value of young heritage is however often limited, and rather secondary or supporting other attributed values (landscape, social or urban design). One example of this is the De Drevekens project described below: it is typical of 1970s housing schemes in Brussels and illustrates the search for an innovative spatial design model.

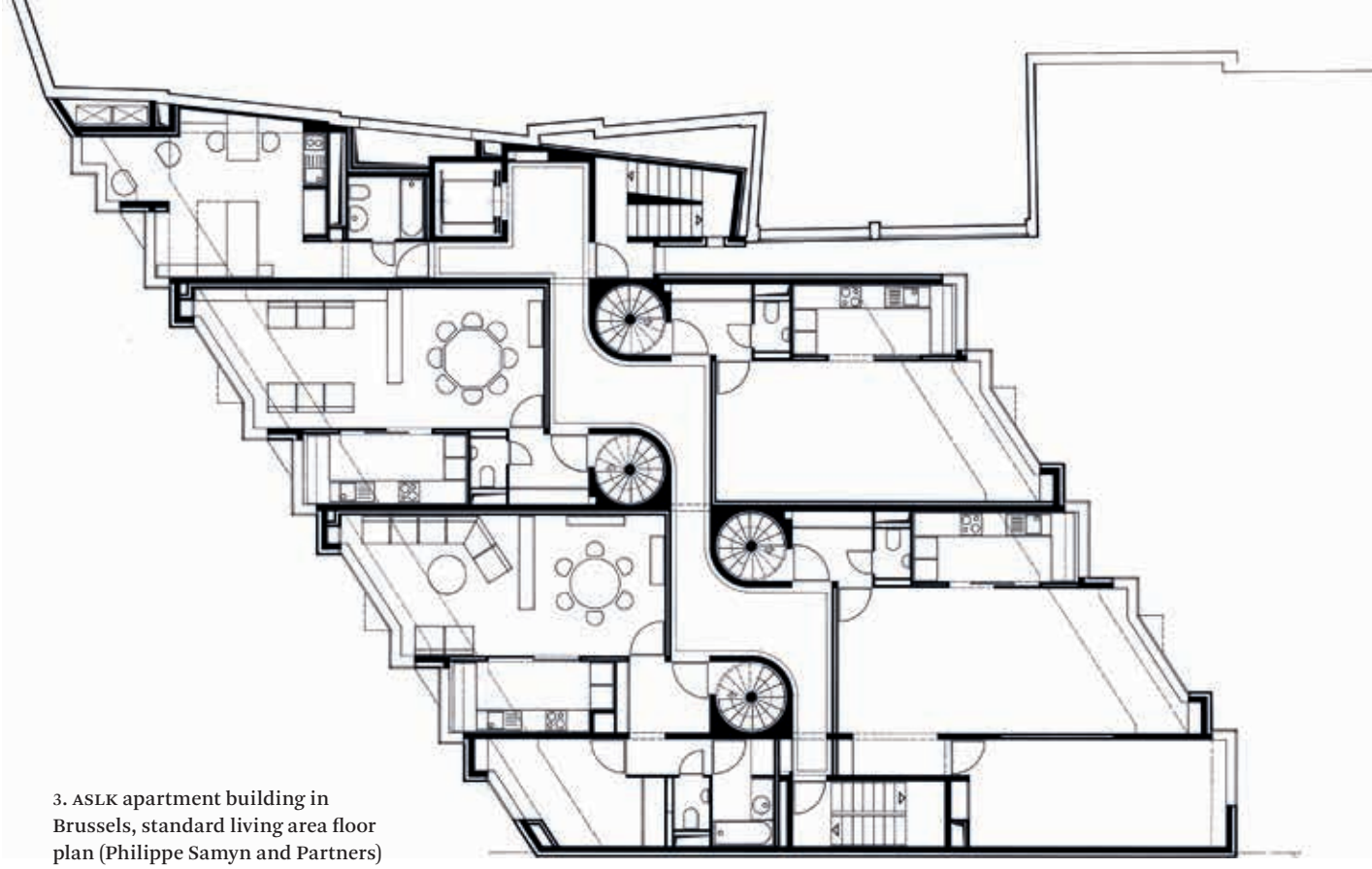
The new method also makes it possible to take account of the materiality of young heritage. Until 2021 'use of materials' was a separate criterion, yet its interpretation was explicitly restricted to the use of and experimentation with new materials. Today, the use of materials and building techniques is no longer considered as a separate criterion, yet is integrated in the assessment of artistic, technical and scientific values, and the criteria on rarity, authenticity, ensemble value and integrity, which enables a more nuanced approach. In artistic value, for example, materials and technical mastery are taken into account when referring to the 'execution'. As for the technical value, this can be related to the early use of a particular material or technique, buildings of structural or technological significance, a structural or technological tour de force, technological innovation, and witnesses of former building methods. Special and experimental materials, construction processes or components are recognized under scientific value.[25] With regard to the heritage criteria, rarity entails a consideration in relation to the building-historical context, including the common building techniques and materials of the time. With regard to ensemble value, a homogeneous construction method and architectural coherence are put forward as important considerations. These non-limiting descriptions, in combination with the encouragement to link various values (for example technical and scientific value), provide opportunities to recognise the materiality of young heritage based on several, possibly mutually reinforcing criteria. Below we discuss in detail two case studies that underscore the importance of materiality in heritage value. Both are included in the Brussels Inventory of Architectural Heritage.

THE ASLK APARTMENT BUILDING

The first case study is the ASLK apartment building in Brussels (1985-1986). Upon completion, the architectural press praised the strong architectural expression of its elevations. Our analysis shows that this expression owed much to the carefully considered detailing, including of elements that are not visible.

The construction of the building is indirectly linked to the development of the first large computers in the 1970s. In the banking sector the transition to computerized operations was fairly rapid since no bank wanted to lag behind its competitors in terms of technology. For the Algemene Spaar- en Lijfrentekas bank (ASLK) that technological switch led to an expansion of its offices: the main office on Wolvengracht in the centre of Brussels was too small to accommodate the integration of computer technology, so the bank decided to buy up several properties in a nearby block and to build a new office on the site.[26] The block, bounded by Koolstraat, Broekstraat and Martelarenplein, was already densely built, presenting the designers with a complex jigsaw to fit the various functions together. The largest and most impressive building was erected on Broekstraat (fig. 1). The delivery and car park entrance was on Koolstraat. This was topped, probably at the request of the city council, by a five-storey apartment building (fig. 2). The design of the project as a whole was entrusted to three Belgian design teams:

2. ASLK apartment building in Brussels, elevation on Koolstraat (photo J. Bauters, 1980s)



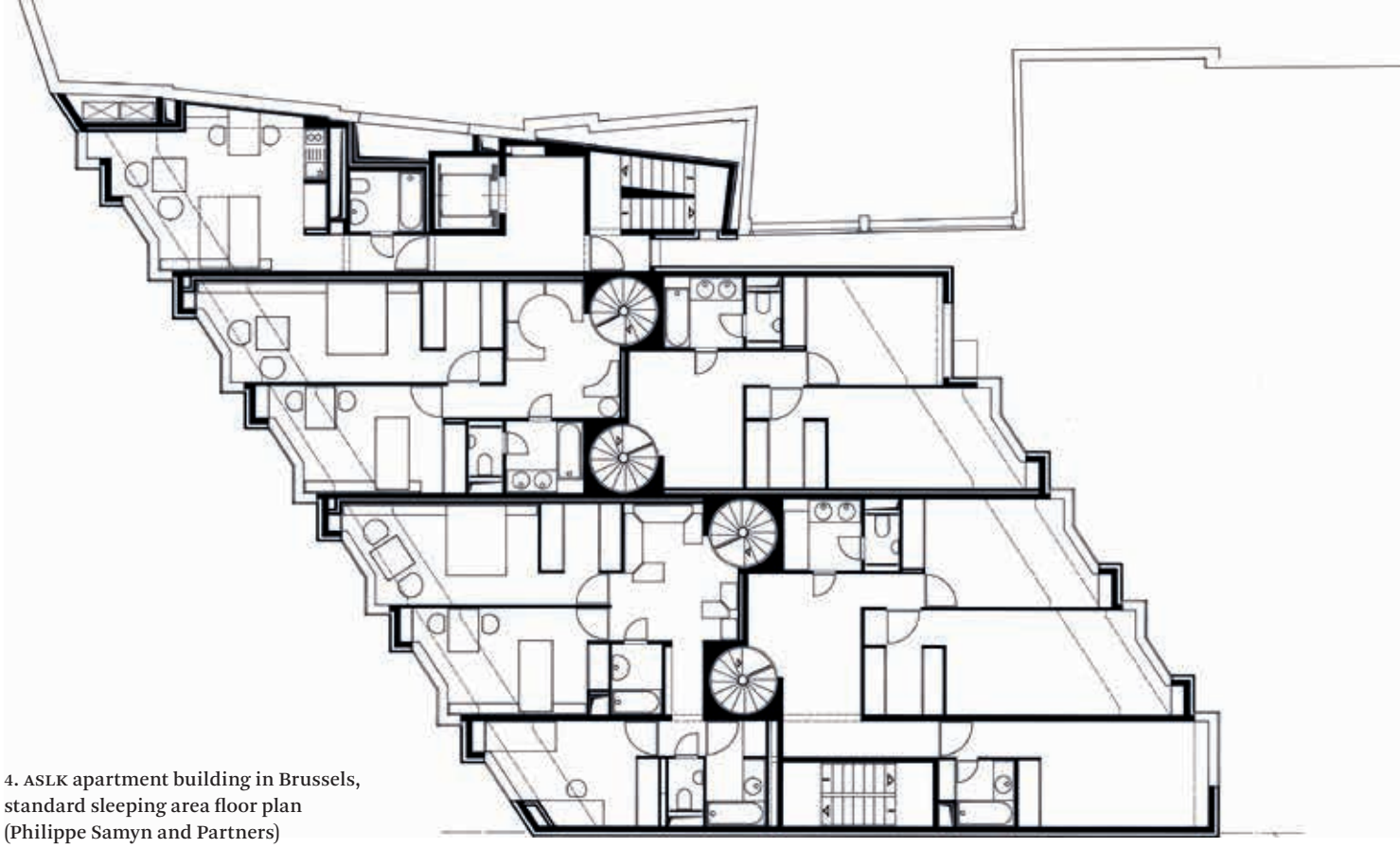
3. ASLK apartment building in Brussels, standard living area floor plan (Philippe Samyn and Partners)

the office of Walter Bresseleers, the ad hoc partnership of Albert De Doncker – Jacques Wybauw – Philippe Samyn, and the office of Henri Guchez. The apartment building on Koolstraat was designed by the architect and civil engineer Philippe Samyn.[27]

The design of the apartment building was complicated by the constraints of the programme (including a car park entrance at street level and residential function on the floors above) and the building's north-south orientation. The individual apartments extend over two floors: the lower floor contains the living areas, the upper floor the bedrooms (figs. 3 and 4). An internal spiral staircase links the two sections. Each living and bedroom floor takes up just half the building depth. Because they are horizontally alternated, each apartment enjoys a double orientation (fig. 5).

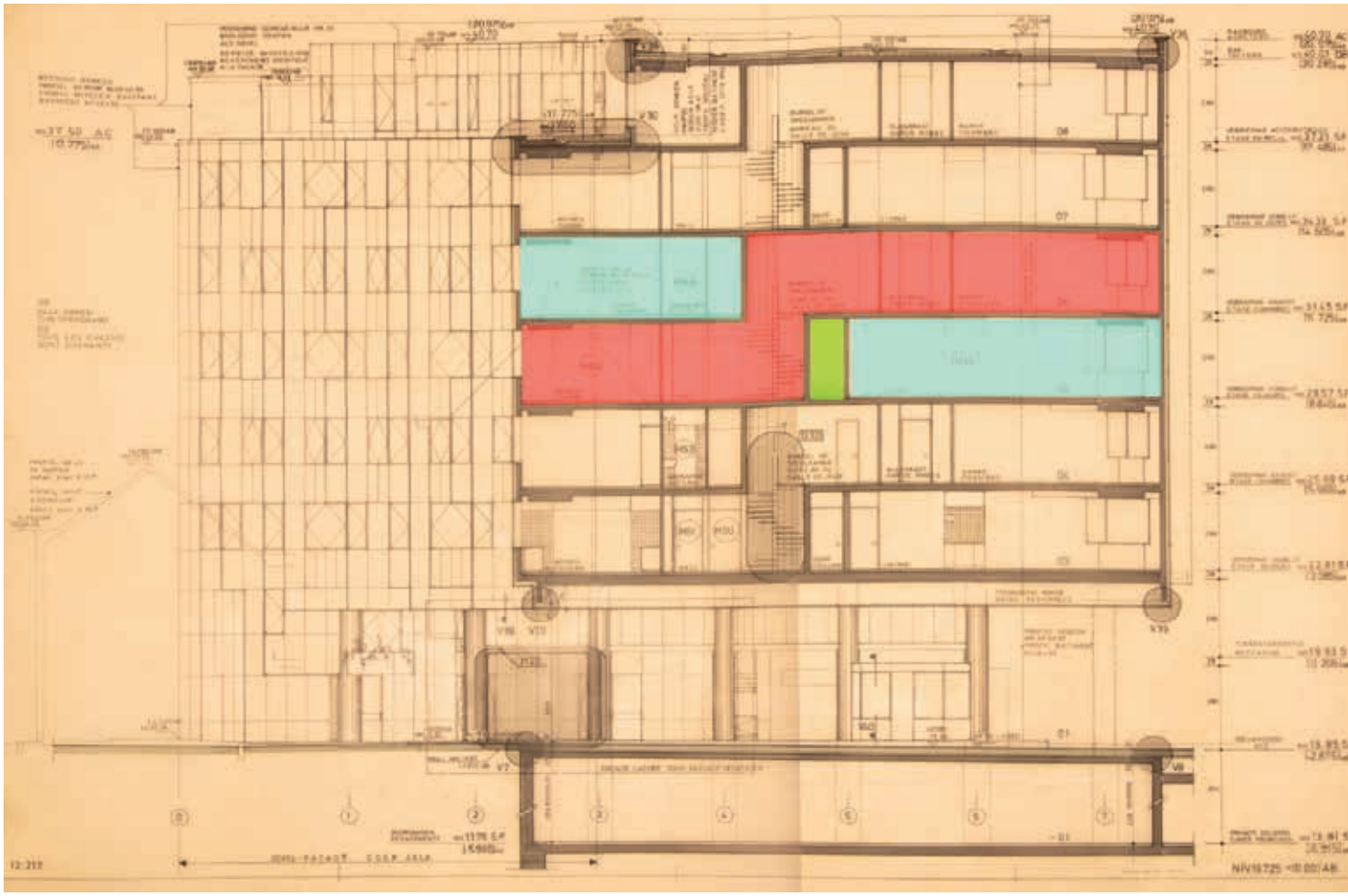
Although the apartment building was not the main part of the building programme, a great deal of thought went into the design of its elevation. In terms of design and materials it resonates with the bank building on Broekstraat. The travertine facade cladding was chosen to match the colour of the white stone elevations on Broekstraat. In addition, the two building volumes have a similar architectonic expression: sharp, elongated triangular projections on the bank elevation and a 'folded' elevation for the apartment building. The travertine facade panels, executed with mitred corners, are ideal for such forms. The windows and the pleats in the facade are aligned in such a way as to optimise the view from the inside and the daylighting of the apartments. In that respect it also appears that the alignment of the windows in the facade plane is not purely aesthetic but has also been designed to increase the incidence of daylight. On top of that, the windows are structurally advanced. Because they are flush with the outer plane of the facade, the window frames could not be mounted and directly fixed to the load-bearing structure in the way that was usual in the 1980s. Instead, they were extended five centimetres beyond the load-bearing elements by means of metal anchors (fig. 6). This solution was subsequently employed more frequently, especially because of the continuing increase in the thickness of the thermal insulation. Equally remarkable is the attention to windproofing, a concept that only started to catch on in Belgium in the 1990s.[28] The technical detailing in the (preliminary) design of 1982 shows that the window openings were rendered windtight by sealing the window frames on all four sides with synthetic rubber flashing (Butyl).

When considering how materiality might be included in the value assessment of this building, the use of travertine and its distinctive structural detailing can be seen as contributing to the aesthetic and artistic value of the building. Although the use of Butyl is not visible, it too merits special attention in the value assessment: it can be regarded as the application of an innovative material (in accordance with the previous 'use of materials' criterion), but also signals a completely new technological development, in particular



4. ASLK apartment building in Brussels, standard sleeping area floor plan (Philippe Samyn and Partners)

5. ASLK apartment building in Brussels, cross-section. Two apartments highlighted (red and blue) as well as shared corridor (green) by the author (State Archives of Belgium)

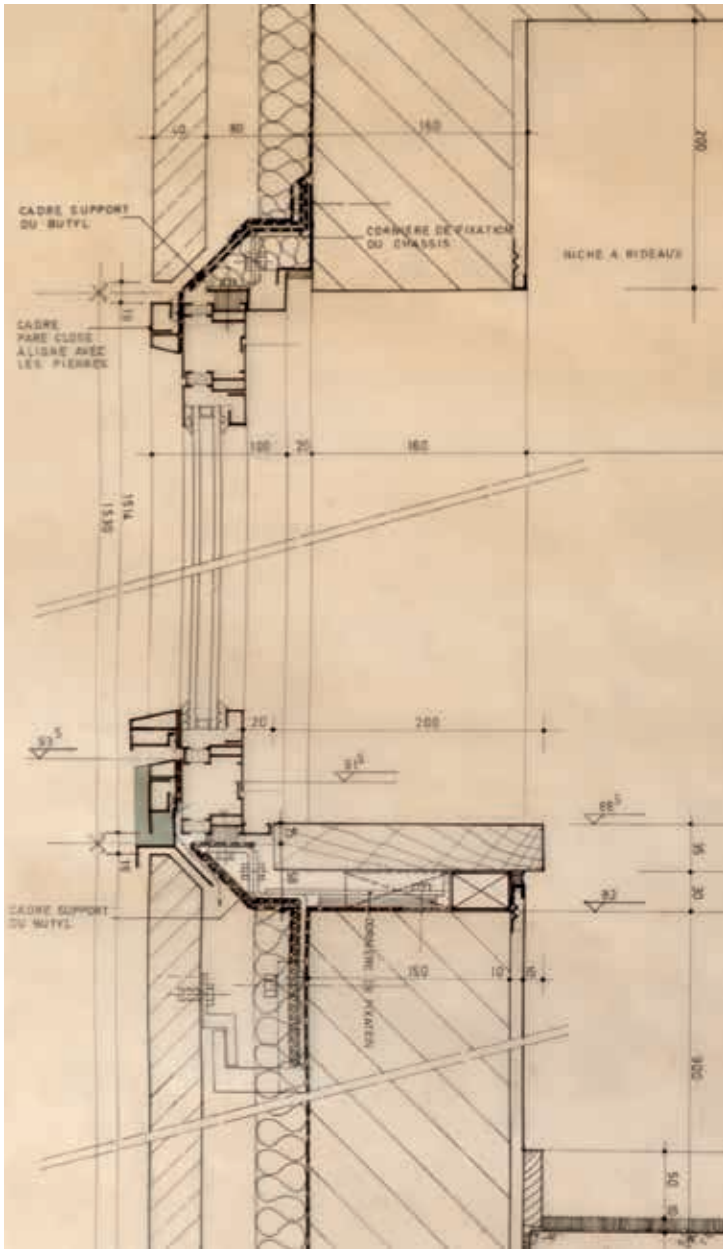


in the area of windtightness. At the time, Butyl was used primarily for damp barriers in roofs, but had not yet been used to windproof windows. This positioning with regard to the prevailing building culture demonstrates that not solely the use of the material in itself, but also its specific use for windproofing is important for correctly assessing the technical value.

DE DREVEKENS

The second case study is De Drevekens, a large-scale housing scheme comprising 360 dwellings in Sint-Pieters-Woluwe (1975-1977), designed by the multidisciplinary design studio Architectes, Urbanistes, Sociologues, Ingénieurs, Associés (AUSIA). The use of materials here is not so much technically advanced, but rather representative for the time period and contributing to the ensemble value. For the spatial configuration the designers drew inspiration from the large-scale 'megastructures' of interconnected modular (residential) units (fig. 7).[29] The result is a district consisting of a single continuous ribbon of buildings – not one elongated volume, but a conglomeration of diverse volumes that together form a single whole. Access to the individual dwellings is via a network of car-free streets and paths on different levels. As such, the project combines the advantages of the individual dwelling, like private access and a sense of security, with the advantages of housing blocks (primarily shared amenities).

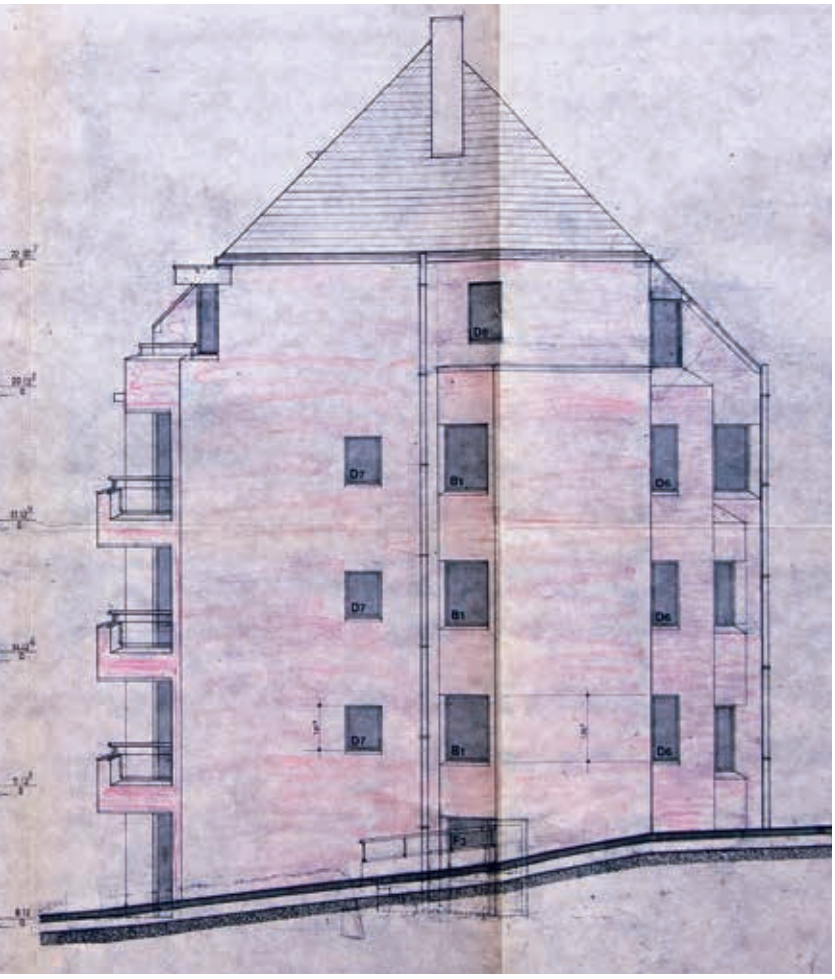
6. ASLK apartment building in Brussels, section through window in elevation (State Archives of Belgium)



The project is defined by the sloping roof planes that act as the unifying element between the volumes. From the 1960s, the sloping roof grew in popularity in Belgium, for both individual dwellings and apartment buildings, while the modernist flat roof fell out of favour (fig. 8). The roof plane was often maximized, becoming an explicit component of the architectural design. In some instances in the 1960s and '70s the roof forms a kind of mantle around the building, with the slates or tiles being used as both facade cladding and roofing material (fig. 9). The return and 'expansion' of the sloping roof brought with it a growing use of different roofing materials like fibre cement slates. These had been on the market since the beginning of the twentieth century, but now began to be used much more widely: about one in four 1970s housing projects included in the Brussels Inventory of Architectural Heritage has a roof and/or facade clad with fibre cement slates. They were available in a wide range of colours and shapes and were also cheaper than stone slates. As the name implies, fibre cement slates consist chiefly of cement and fibres – mainly asbestos fibres.[30] Despite the public debate about the health risks of asbestos in the 1970s, the first asbestos-free slates were not produced until the mid-1980s.[31]

Research into the history, application and evolution of fibre cement slates in relation to the building culture of the time shows that the slates used in De Drevekens were neither unique nor innovative: slates with the same composition, size, colour and texture were used in countless other Brussels (housing) projects in the 1960s and '70s. Even the attachment method using hooks and nails on timber battening is very common. Therefore, it is difficult to attribute a technical heritage value to the project. Yet, because it is so typical or common, this use of slates is representative of general trends in housing in Brussels of that time. In addition, the slates contribute greatly to the ensemble value. In this respect, and considering that striving for material authenticity in the case of restoration would

7. De Drevekens housing estate in Sint-Pieters-Woluwe, Brussels (aerial photo Ministry of Public Works, 1970s)



8. Atelier d'architecture et d'urbanisme, side elevation of apartment building in Ukkel, Brussels, 1975 (Archives Louis De Waele, Machelen)

9. Advertisement for Eternit slates (*A+: architectuur, stedebouw, design* 16 [1975])

be complicated by the presence of asbestos fibres, it is important to note that the exact composition of the material is less important than the overall materiality: the homogeneous construction method and the architectural coherence generated by the uniform application of the slates in roofs and elevations, and the interplay with the facade brickwork, ensure a close connection between the materiality and typology, with the expansive and visually defining function of slates being crucial in the overall spatial effect (fig. 10).

CONCLUSION

Following the increasing interest in young heritage in heritage circles in recent years, the imperative for a scientifically based framework for the recognition and value assessment of this heritage becomes stronger. Several terms are used to delineate 'young' heritage, some defined more precisely in terms of chronology or age than others. Yet, for assessing the value of young heritage, defining an exact time limit is not necessary, as it is neither desirable nor productive to evaluate this as a separate category, using a value assessment method specifically geared to its age. It is, however, important that general value assessment methods allow for the specificity of young heritage to be recognized. A major challenge lies in the fact that much of the necessary knowledge about young heritage still needs to be assembled, including in the area of materiality, and that the method used to assess the value of young heritage allows for this knowledge to be implemented.

The heritage value assessment method used since 2021 by the Brussels-Capital Region allows for the recognition of the specificity of young heritage. What is crucial in this respect is the openness to interpretation in relation to the various heritage values and criteria; a strict or traditional understanding of criteria like 'rarity' or 'historical value' is clearly inadequate and unhelpful in the case of young heritage. A second important aspect of the Brussels method is that values and criteria are not considered separately but can be linked to one another. In that integrated approach, different values can reinforce one another and the positioning of an object vis-à-vis the wider context is also taken into account.

Each of the two case studies illustrates in a different way the importance and the challenges of a correct value assessment of young heritage. Our analysis focused specifically on the aspect of materiality. The ASLK apartment building demonstrates that rather than concentrating solely on the material itself, this should be evaluated within the wider construction culture of the time to grasp its innovative character. By contrast, the De Drevekens project shows that even unexceptional materials can contribute to the her-

10. De Drevekens housing estate in Sint-Pieters-Woluwe, Brussels (photo P. Braquenier, urban.brussels, 2022)

itage value. Despite the differences, both case studies underscore the importance of (research into) materiality and of an integrated approach to this in assessing young heritage: only with a sufficiently broad and deep insight into materiality is it possible to reach a correct and specific interpretation of the heritage values and criteria. This applies of course to every heritage object, irrespective of period, but our incomplete knowledge about the materiality regime of the last part of the twentieth century means that young heritage is in danger of not being assessed on its merits. Nor is materiality the only aspect requiring special attention: more knowledge is needed about other aspects, such as architectural culture, alternative forms of living, or urban design developments, in order to arrive at a correct and nuanced value assessment of young heritage.

NOTEN

1 R. Koolhaas, 'Preservation is overtaking us', *Future Anterior. Journal of Historic Preservation, History, Theory, and Criticism 1* (2004) 2, xiv, 1-3, www.jstor.org/stable/25834941?seq=3.
2 Le ministère de la Culture (France), policy document 'Maison Lemoine' (PA33000068), published on 16 March 2003, www.pop.culture.gouv.fr.
3 G.J. Ashworth and P. Howard, *European Heritage, Planning and Management*, Exeter 1999.
4 This article fits within the framework of the doctoral project 'The Brussels housing stock (1975-2000). Materiality and heritage value' of Marylise Parein under the supervision of Stephanie Van de Voorde and Ine Wouters (Vrije Universiteit Brussel) and Manja Vanhaelen and Stéphane Demeter (regional heritage administration urban.brussels) and financed by Innoviris. www.vub.be/arch/project/archbxl1975.
5 S. Sterken and Y. Schoonjans, 'Hoe jong kan bouwkundig erfgoed zijn? Reflecties omtrent de erfgoedwaarde van het naoorlogs architecturaal patrimonium', in: M. De Kooning et al., *Architectuur sinds de Tweede Wereldoorlog*, Brussels 2008, 13-35.
6 S. Van de Voorde et al., 'Geërfd goed. De eigen woning van architect Georges Volckrick', *M&L* 40 (2021) 1, 28-45.
7 Sterken and Schoonjans 2008 (note 5) use 'modern heritage' to refer to heritage from the Second World War onwards; in the Netherlands 'Post 65 heritage' was introduced by the Rijksdienst voor het Cultureel Erfgoed for heritage from the period 1965-1990 (www.cultureelerfgoed.nl/onderwerpen/post-65-erfgoed); this expression is now used by local heritage administrations and academic institutions.
8 Agentschap Onroerend Erfgoed Vlaanderen, 'Het Gentse naoorlogse erfgoed in kaart gebracht', 8 January 2020, www.onroerenderfgoed.be/blog/het-gentse-naoorlogse-erfgoed-kaart-gebracht.
9 Council of Europe, Committee of Ministers, 'Recommendation No. R (91) 13 of the committee of Ministers to member States on the protection of the twentieth-century architectural heritage', 9 September 1991, www.coe.int/en/web/culture-and-heritage/texts-of-reference.
10 The 'at risk' actions of DOCOMOMO draw attention to radical conversions or demolition of modern heritage. Recently, post-1970 buildings have started to appear on this list, such as the iconic Nakagin Capsule Tower (Kisho Kurokawa, 1972, Tokyo) and the Robot Bank building (Sumet Jumsai Architects, 1983-1986, Bangkok), docomomo.com/momo-at-risk/.
11 S. Macdonald and G. Ostergren (eds.), *Conserving Twentieth-Century Built Heritage. A Bibliography*, Los Angeles 2013.
12 In 2021, for example, the Getty Conservation Institute and the ICOMOS International Committee on 20th Century Heritage (Icomos ISC20C) developed an historical framework to help identify and contextualize twentieth-century heritage areas. In addition, DOCOMOMO has widened its focus from mainly modernist architecture from before 1940 to architecture from the second half of the twentieth century. There are also organizations active at the national and regional level, such as The Twentieth Century Society in the United Kingdom that, like ICOMOS, campaigns to save at-risk buildings from the wrecking ball.
13 H. Davis, *The Culture of Building*, Oxford 2006.
14 A. Picon, *The Materiality of Architecture*, Minnesota 2021.
15 S. Van de Voorde, I. Bertels and I. Wouters, *Post-war building materials in housing in Brussels, 1945-1975*, Brussels 2015; F. Graf, *Histoire matérielle du bâti et projet de sauvegarde*, Lausanne 2014.
16 In addition to the authors' project at Vrije Universiteit Brussel, one can mention for instance the 'Erfgoed van de 20e eeuw' (20th-century heritage) project of the Rijksdienst voor het Cultureel Erfgoed and a research project on the protection and preservation of post-war heritage at the Ecole Polytechnique Fédérale de Lausanne, headed by professor and restoration architect Franz Graf. See for example F. Graf and G. Marino, *Avanchet-Parc.'Cité de conception nouvelle et originale'*, Gollion 2020.
17 'Titel V: Bescherming van het onroerende erfgoed', in: Brussels Wetboek van Ruimtelijke Ordening (BWRO), last amended on 8 September 2022, www.ejustice.just.fgov.be/cgi/summary.pl.
18 urban.brussels, 'Wettelijke vrijwaringsmaatregelen', erfgoed.brussels/doen/wettelijke-aspecten/wettelijke-vrijwaringsmaatregelen (accessed on 24 April 2023).
19 The Brussels-Capital Region's safeguarded heritage register contains some 1300 objects. As well as buildings it includes landscape elements and architectural ensembles, making it difficult to calculate the percentage of 'young heritage'.
20 Calculating the percentage of 'young heritage' in the Inventory of Architectural Heritage of the Brussels-Capital Region is hampered by the limited functionality of the search tool and the size of the inventory (c. 25,000 files and 40,000 objects). As a result, these quantitative data amount to no more than a snapshot (July 2023); the quoted statistics with regard to the Brussels building stock were established on 1 January 2022 and are accessible via the Belgian statistics office, Statbel: statbel.fgov.be/en.
21 Ministry of the Brussels-Capital Region, Directorate of Monuments and Landscapes, Cel Inventaris, *Inventaris van het bouwkundig erfgoed van het Brussels Hoofdstedelijk Gewest. Methodologie*, Brussels 2010.
22 Cel Communicatie van de Stad Brussel, *Meerderheidsakkoord 2018-2024. Een harmonieuze en solidaire internationale stad*, Brussels 2018.
23 urban.brussels, '1939-1999', monument.heritage.brussels/nl/1939_1999/96 (accessed on 24 April 2023); the thematic inventory was carried out in 2022 by researchers affiliated to the Université Libre de Bruxelles.
24 urban.brussels, *Inventaris van het bouwkundig erfgoed van het Brussels Hoofdstedelijk Gewest. De selectie van gebouwen en gehelen in de inventaris van het Bouwkundig Erfgoed*, Brussels 2022.
25 Ministerie van het Brussels Hoofdstedelijk Gewest, Directie Monumenten en Landschappen, Cel Inventaris 2010 (note 21).
26 T. Henrard and T. Greck, *Etude historique. BNP Paribas Fortis*, Brussels 2021.
27 Henrard and Greck 2021 (note 26).
28 P. Wouters, 'Ventilatie en infiltratie in gebouwen: de stand van zaken in België', *WTCB Tijdschrift* (1986) 3/4, 39-48.
29 Verbal communication from Jean de Salle, co-founder of AUSIA, with the author, 29 November 2022.
30 O. Hardy-Hémery, *Eternit et l'amiante 1922-2000. Aux sources du profit, une industrie du risque*, Histoire et civilisations Villeneuve d'Ascq 2005.
31 The first advertisements of this new technology by Eternit appeared in Belgium in 1986, trumpeting 'a new composition without asbestos'.

IR ARCH M. PAREIN obtained her Master of Science in Architectural Engineering degree from the Vrije Universiteit Brussel (VUB). She is currently a PhD researcher with the Department of Architectural Engineering at the Vrije Universiteit Brussel (VUB), where she is working on a PhD thesis on the materiality and heritage value of the Brussels housing stock (1975-2000) in collaboration with the urban.brussels regional heritage administration.

PROF DR IR-ARCH S. VAN DE VOORDE has a tenure track position with the Department of Architectural Engineering at the Vrije Universiteit Brussel (VUB). Her expertise is in the field of architectural history, construction history and heritage, with a special focus on twentieth-century building culture and young heritage.

PROF DR IR-ARCH I. WOUTERS is a professor in the Department of Architectural Engineering at the Vrije Universiteit Brussel (VUB). In addition to teaching contemporary construction and renovation techniques, she conducts research into building materials and techniques in the nineteenth and twentieth centuries.

The authors' individual contributions to this article are as follows. Marylise Parein: idea development, data collection, literature study and archival research, and editing; Stephanie Van de Voorde: idea development and fine-tuning, context and theory of value assessment and the importance of materiality, and editing; Ine Wouters: idea development and fine-tuning, structural engineering context, and editing.

VALUE ASSESSMENT OF YOUNG HERITAGE

THE IMPORTANCE OF MATERIALITY IN AN INTEGRATED APPROACH

MARYLISE PAREIN, INE WOUTERS AND STEPHANIE VAN DE VOORDE

The recent surge in interest in 'young' heritage is coupled with a growing need for a scientifically based framework for dealing with it. This article examines the specific characteristics of 'young heritage', how it is evaluated, and the knowledge required for that. The term 'young heritage' is not easy to define because the minimum historical distance required for assessing or protecting a building as heritage differs from country to country.

More important than an exact definition, however, is increased awareness and greater recognition of the special characteristics of this heritage. One of these characteristics is materiality. This refers not just to the building materials and techniques used but includes its positioning with respect to the wider building culture in which it is rooted. The final decades of the twentieth century were characterized by a distinctive materiality, and this too needs to be included in any value assessment.

To work out how this might be done using existing value assessment methods, this article looks at the method used since 2021 by the Brussels-Capital Region in drawing up its Inventory of Architectural Heritage. This method is based on ten heritage values and six heritage criteria. The individual values and criteria are not strictly defined but rather described, so as to allow room for interpretation. And instead of dealing with the values individually, the goal is an integrated approach in which different values and criteria are able to support and reinforce one another. This provides opportunities for recognizing the specificity of young heritage and for emphasizing the importance therein of materiality.

The article then applies the Brussels method, with a particular focus on materiality, to two case studies: the ASLK apartment building (engineer and architect Philippe Samyn, Brussels, 1985-1986) and the large-scale housing project 'De Drevekens' (AUSIA design office, Sint-Pieters-Woluwe, 1975-1977). The first case study demonstrates that a proper assessment of the technical value requires that the materials used be assessed within the context of the wider building culture. The second case study illustrates the fact that materials without any special technical value can still play an important role in other heritage values.

Both case studies attest to the benefits of an integrated approach to heritage values and the importance of materiality in the recognition of young heritage. One major challenge is acquiring sufficient in-depth insight into the materiality to arrive at an accurate and specific interpretation of the heritage values and criteria.

PARTICIPATORY EVALUATION

THE EXAMPLE OF NIEUWEGEIN

EVELIEN VAN ES, SARAH GRESNIGT AND LARA VOERMAN

▲ 1. The centre of Nieuwegein seen from the west; in the centre Cityplaza (photo Gemeente Nieuwegein)

The history of architecture and art is one of perspectives: the relationship between object and observer is constantly changing. The way we evaluate heritage is equally susceptible to change. The Verkenning Post 65 survey conducted by the Rijksdienst voor het Cultureel Erfgoed (RCE, Dutch Cultural Heritage Agency) has significantly boosted interest in and appreciation for immovable heritage from the period 1965-1990.[1] Now that these buildings are entering the protection and preservation phase, the question of the most appropriate evaluation instruments arises.

The current evaluation framework for built heritage, which was developed by the RCE, comprises a number of criteria that allow the heritage values of a building or a complex to be determined in a consistent manner.[2] Although this standard is theoretically applicable to all immovable heritage regardless of period, the RCE asked us to assess the extent to which the evalua-

tion framework is applicable to Post 65 heritage. Does it require a different approach and different evaluation criteria? Perhaps even more important was the underlying issue of the division of roles when determining heritage values. This relates to the Council of Europe's Faro Convention, which emphasizes the right of every person to engage with cultural heritage and to attach their own meanings to it.[3] In a fact-finding survey conducted in the autumn of 2020, two of us – Evelien van Es and Lara Voerman – held open discussions with professionals from the heritage field and related study areas, such as the design disciplines and the humanities (history, philosophy, cultural studies). This enabled us to view the nature of Post 65 heritage and the relation between citizen opinion and expert opinion from a range of perspectives. One of our interviewees was Sarah Gresnigt, research intern with the City of Utrecht. Not long after the completion of our survey, she was appointed heritage policy adviser for the Jonge Monumenten (recent heritage) project launched by the municipality of Nieuwegein. Nieuwegein is one of the few municipalities that evaluates and selects heritage objects in consultation with its residents. After months of theorizing and analysing, we were curious to discover how this works out in practice.

THE EVOLUTION OF THE EVALUATION FRAMEWORK

The evaluation criteria standard has evolved over the course of the past 120 years. Its basis lay in the evaluation of a building's significance for national history and art. The first Monuments Act (1961) talked of beauty, scientific significance and folkloric value. In the 1988 Monuments Act folkloric value was replaced by cultural value. In 1991 a handbook on the methodology of inventorying and evaluation was formulated for the Monuments Inventory Project (MIP) and the Monuments Selection Project (MSP) 1850-1940.[4] It was the first time that such guidelines had been formally laid down. The legal criteria were written out in detail and included attention to the historical-geographical and socio-economic context, which is particularly relevant for the period when the Netherlands was industrializing. In 2007, for the registration of buildings from the post-war reconstruction period (1940-1958), these criteria were expanded with two sub-criteria: construction history value and memory value. This was also the first time that a distinction was drawn between *evaluating* buildings based on established [specific] criteria and *selecting* buildings for listed status. The result was a framework of scientific, objective criteria that could in principle be applied to all built heritage, from ancient to postmodern.[5]

THE DISTINCTIVE CHARACTERISTICS OF POST 65 ARCHITECTURE

The period 1965-1990 was a time of major social, socio-economic and spatial developments which had a profound effect on the living environment. Chronologically, this period falls between two big government-led construction programmes: post-war reconstruction and the Vinex urban expansion scheme. These twenty-five years were characterized by a relatively high degree of municipal involvement whereby local politicians set their stamp on spatial policy. Experiments in concept, form and resident participation were aimed at improving the quality of the housing environment and the amenity value of the built environment. Democratization, emancipation movements, new forms of cohabitation and increasing individualism resulted in an architecture based on identity and human scale. In the 1970s the designs produced by architects and urban planners were driven by a particular social ideology. Their desire to create residential environments that would foster a sense of community gave rise to home zone neighbourhoods, urban renewal projects and multifunctional buildings. Sociological and behavioural research changed ideas about the quality of the living environment: in the city designers endeavoured to create a lively streetscape and prioritized pedestrians and cyclists. Nature and cultural-historical landscapes were 'discovered' as a source of inspiration for urban design schemes. Greenery was scaled down, interwoven with other urban elements and located closer to dwellings. These trends continued into the 1980s, sparking a renewed interest in architectural tradition and the cultural significance of the design.[6] A quarter of today's housing stock was built in the years 1965-1990. That Post 65 heritage is facing an urgent sustainability retrofit that will have a big impact on the architecture. While one of its main values is of a conceptual nature, that value finds expression in a specific formal idiom, use of colour and materialization, the value of which is not always recognized.

HISTORY OF USE AND LIVED EXPERIENCE

Not everyone is convinced of the historical value of Post 65 heritage. The closer an object is to the present day, the more difficult it is to determine its historical significance. Government Architect Floris Alkemade concluded in 2018 that the value of modern heritage can only be recognized if it is explained to people: 'There is a vast domain of heritage buildings that are beyond all doubt. Experts and citizens alike recognize their value and the need to protect their qualities. [...] But there is another vast domain of buildings that are too recent for us to readily establish a recognizable heritage value. This is where those guided by intuition

2. Pietro Hammel, water dwellings in the Doorslag district of Nieuwegein (photo Daphne Luijters)

and the experts often differ, opening an interesting space for debate.'[7]

Because it is relatively young, Post 65 heritage offers the possibility of recording lived experiences and translating these into cultural-historical values: first-hand personal stories, often gathered from still living designers, first generation residents and pioneers. Their knowledge and expertise will lend added weight to the application of the criterion of cultural-historical value to the evaluation of this heritage. Yet this criterion is often overlooked. The history of use is not always mentioned even though the use of building for a purpose other than the one for which it was designed may enhance its cultural-historical value. A case in point is the multi-storey Kempering car park in Amsterdam-Zuidoost that was subsequently used as a place of worship by the African Pentecostal Church. The nature of Post 65 heritage calls for a readjustment of the evaluation toolkit. Shifts in emphasis and/or a different appraisal method are required for a broader understanding of the cultural-historical value of this heritage and of the sources that can be drawn on for recognizing and naming those values.

HERITAGE PARTICIPATION IN NIEUWEGEIN

The issue of whether the evaluation framework should be adjusted to accommodate Post 65 heritage touches on bigger themes and trends, such as citizen participation, the democratization of heritage preservation and the changing role of the heritage professional. According to Verkenning Post 65, growing interest in the social and community-building value of heritage has changed the task for the heritage discipline. In a survey held during the Monumentencongres in 2018, participants indicated that citizens as well as experts should play a role in the selection of objects for heritage listing.[8] Some municipalities, such as Almere and Nieuwegein, are a step ahead in this respect and are already protecting places and buildings nominated by citizens. Our study had just wrapped up when Nieuwegein seized on its fiftieth anniversary to launch a project to inventory recent heritage and to investigate whether any of these objects qualified for listed status. Nieuwegein arose in 1971 out of the amalgamation of two villages – Jutphaas and Vreeswijk – to the south of Utrecht. Simultaneously designated an urban overspill 'growth area', it underwent rapid development in the ensuing decades. Nieuwegein's Post 65 architecture is quite diverse and includes outstanding home zone neighbourhoods like Verhoevenwijk in Doorslag, with its shared gardens and pedestrian-friendly atmosphere. During the Jonge Monumenten inventory project, the city council was open to input from its residents. They could vote online on the objects and structures the council had already selected, but they were also able to nominate objects that were not on the list. One such nomination, of the Cityplaza shopping centre, revealed that residents had a different perspec-

3. The young clientele of this pavement café in Cityplaza Nieuwegein will evaluate the shopping centre differently from heritage experts (photo Gemeente Nieuwegein)

tive from experts regarding the value of recent heritage. The experts had dismissed the 1980s complex by the architect Jan Hoogstad because of subsequent radical alterations, but for the residents the shopping centre symbolized the growth of the young city. In this 'interesting space for debate' the roles appeared to be reversed; those who followed their intuition needed to explain the nature of Cityplaza's value to the experts in order for the latter to be able to recognize it. The inventory was followed by evaluation and selection, during which the council and residents once again worked together. It turned out that the traditional evaluation framework is of limited applicability to the Post 65 heritage in Nieuwegein. The feedback from residents resulted in different perceptions and raised questions. Discussions on the heritage values of two home zone neighbourhoods were not about the built fabric, but about places of significance and social values: the village-like character, the sense of belonging and the conviviality of the home zone. There are of course spatial aspects that contribute to this, but to talk exclusively about their architectural-historical and spatial design values is to deny expression to the lived experience of these neighbourhoods. The quest for criteria that would allow home zones and Cityplaza to be heritage-protected is not about their built fabric, but about their values as experienced by the residents.

PARTICIPATE BY HELPING TO DECIDE

The process the city of Nieuwegein went through in this project shows how important it is in the case of relatively recent buildings to interpret the aim of evaluation more broadly than simply establishing the heritage value. The give and take between expert opinion and citizen opinion is crucial to increasing public support. With major transformation and sustainability programmes on the horizon it is important to have a widely accepted heritage evaluation system in place. In traditional practice, heritage professionals act independently and make a value assessment based on their expertise. The process by which they arrive at that assessment is not explained and is consequently not always clear, with the result that such assessments are sometimes viewed as arbitrary. Evaluating and selecting in a broader context (project-based, thematic or with a designation programme) and including stakeholders in the various steps will make the process more transparent. Allowing stakeholders to take an active part in the process will also make it more democratic. The process is important. 'Such a value assessment sheds light on the richness and diversity of the heritage, while also recognizing a wide range of stakeholders,' argues Veerle Meul, head of collections at the Middelheim Museum in Antwerp.[9] It is also in the spirit of the Faro Convention, shortly to be ratified by the Netherlands. By adopting this approach, heritage could have more of a function for society than is currently the case. For it is not just the historical place, the object and the tradition that are important, but also their different meanings and uses.[10]

NOTEN

1 Rijksdienst voor het Cultureel Erfgoed, *Post 65. Nieuwe perspectieven tussen welvaart en weerstand* (Rapportage Verkenning Post 65), Amersfoort 2019.
2 Rijksdienst voor het Cultureel Erfgoed, *Waarderingscriteria bouwkunst*. Richtlijn 01-01-2019.
3 www.cultureelerfgoed.nl/onderwerpen/erfgoedparticipatie-faro/verdrag-van-faro (accessed 28 April 2023).
4 Rijksdienst voor de Monumentenzorg, *Handleiding selectie en registratie jongere stedebouw en bouwkunst (1850-1940)*, Zeist 1991.
5 Rijksdienst voor het Cultureel Erfgoed, *Eenheid en verscheidenheid. Een zoektocht naar een integrale cultuurhistorische waardestelling van het materiële erfgoed. Achtergronddocument*, Amersfoort 2014.
6 Dirk Baalman, *Nederland aan het eind van een millennium. Bouwen en ordenen 1965-2000* (Heemschutserie), Amsterdam 2018.
7 Floris Alkemade, 'Vox Populi' [lecture delivered at the international conference Citizens Involved: Participatory Governance of Built Heritage], Amersfoort 3-4 October 2018.
8 The theme of the Nationaal Monumentencongres held on 8 November 2018 in Amersfoort was the social significance of heritage. Rijksdienst voor het Cultureel Erfgoed 2019 (note 1), 30.
9 Conversation with Veerle Meul, head of collections at the Middelheim Museum in Antwerp, 2 October 2020.
10 www.cultureelerfgoed.nl/onderwerpen/erfgoedparticipatie-faro/verdrag-van-faro (accessed 28 April 2023).

E. VAN ES MA studied architectural history at the Vrije Universiteit in Amsterdam. She has been a curator with the Netherlands Architecture Institute in Rotterdam and visiting lecturer in the Faculty of Architecture and the Built Environment at TU Delft. She is currently an adviser to the Rijksdienst voor het Cultureel Erfgoed and, with the practice she established in 2003, is engaged in research into architecture with an emphasis on the Post 65 period.

S. GRESNIGT MA obtained a bachelor's degree in Archaeology from the University of York in England in 2014. After several years in the field, in 2018 she embarked on the Master's programme in Heritage Studies at the Vrije Universiteit Amsterdam, which she completed two years later. Her master's thesis brought together the topics of Post 65 heritage, the Environmental Act and municipal policy.

L. VOERMAN MA is an architectural historian. Taking history as her starting point she advises local authorities, developers and design practices on the future of a landscape, a district or a building. Objects from the Post 65 period recently investigated by Voerman are Rotterdam's De Schie penitentiary, Amsterdam's Amstelpark and the University of Twente campus in Enschede.

Evelien van Es and Lara Voerman adapted the research report they wrote in 2020. Sarah Gresnigt provided the contribution on Nieuwegein.

PARTICIPATORY EVALUATION

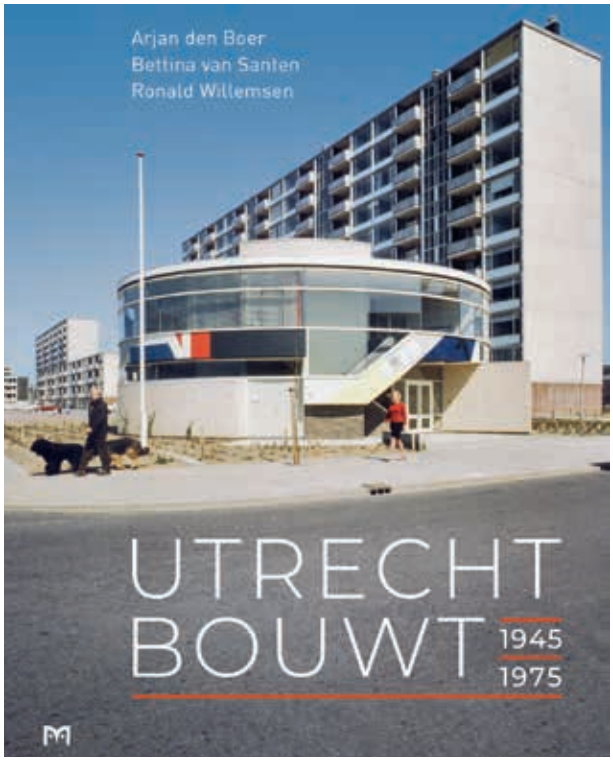
THE EXAMPLE OF NIEUWEGEIN

EVELIEN VAN ES, SARAH GRESNIGT AND LARA VOERMAN

The standard of evaluation criteria for built heritage has evolved to such an extent over the past 120 years that it can theoretically be applied to every period. However, the survey of Post 65 architecture conducted by the Netherlands Cultural Heritage Agency (RCE) suggests that the nature of built heritage from the years 1965-1990 differs from that of previous periods and might require a different approach to these evaluation criteria. For example, the relatively young age and the social context of this heritage provides opportunities for recording people's lived experience of the architecture first hand and for involving citizens as well as experts in the selection and evaluation process.

Now, with the phase of protection and preservation of Post 65 heritage fast approaching, it is time to take another look at the evaluation framework. In light of the EU's Faro Convention, which puts the main focus on society and people and their relationship with heritage, this study explicitly incorporates the role of citizens.

The designated growth centre of Nieuwegein serves as example. During this municipality's Modern Monuments project residents submitted suggestions for protecting heritage and identified the values they attached to it. There were substantial differences of opinion between residents and heritage experts, which ultimately resulted in a richer and more diverse evaluation of modern heritage.



ARJAN DEN BOER, BETTINA VAN SANTEN AND RONALD WILLEMSEN

UTRECHT BOUWT 1945-1975

Utrecht (Uitgeverij Matrijs), 2019, 184 pp., ills. in black & white and colour, ISBN 9789053455531, € 29.95

JUDITH VAN HOOGDALEM AND BOTINE KOOPMANS

POST 65 – EEN TURBULENTE TIJD ARCHITECTUUR EN STEDENBOUW IN DEN HAAG 1965-1995

Zutphen (Walburg Pers), 2023, 247 pp., ills. in black & white and colour, ISBN 9789464561357, € 34.99

In 2023 Hoog Catharine – the 'shopping heart of the Netherlands' – celebrated its fiftieth anniversary. This American-style shopping mall was built in the middle of the Post 65 period. As the authors of *Utrecht bouwt 1945-1975* explain, the beginning of the 1970s saw the dawn of a new era. The 1965 Spatial Planning Act had made it obligatory to draw up a zoning scheme for every spatial planning intervention, including organizing public consultation sessions and administrative appeals procedures. At that point the massive Hoog Catharine project was too far advanced to be rolled back; permission to fill in a section of Utrecht's historic defensive canal had already been granted and demolition for the construction of the shopping centre and a new railway station had commenced. In the following years, however, many components of the original plans were modified, thanks in part to the input of action groups and citizens' committees – symptomatic of the changing times.

The Hoog Catharine case concludes *Utrecht bouwt 1945-1975*, a highly readable publication by Arjan den Boer, Bettina van Santen and Ronald Willemsen. The book considers the post-war construction and expansion of Utrecht. Like many other Dutch cities, Utrecht initially had to contend with a shortage of housing, but by the 1950s it had started to develop into a modern, 'optimistic' city. The guiding principle of this development was the 'neighbourhood' concept, whereby the redevelopment of both the city and society was tackled on three levels of scale: city, district and neighbourhood. Each of these was provided with the 'appropriate' amenities and infrastructure. Neighbourhoods

MARCEL BARZILAY, RUBEN FERWERDA AND ANITA BLOM

EXPERIMENTELE WONINGBOUW IN NEDERLAND 1968-1980
64 GEREALISEERDE WOONBELOFTEN

Rotterdam (nai010 publishers), 2019, 175 pp., ills. in black & white and colour, ISBN 9789462085343, € 37.95

were made up of housing and small-scale amenities like a kindergarten, a baker or a grocer. Several neighbourhoods together formed a district, clustered around a district core containing a primary school, a church and a library. The districts then conglomerated at the level of the city where administrative buildings, offices, a university, businesses or a theatre were located. All these organizing principles and levels of scale, along with a great variety of typologies, residents/users and clients, are dealt with in eleven chronologically ordered chapters. Each chapter focuses on a single district. The headings sum up the innovations in these districts, such as 'Halve Maan. For the better-off worker', 'Tolsteeg-Hoograven. A cluster of recognizable neighbourhoods' and 'De Uithof and Rijnsweerd. University campus with stockbroker belt'. Main texts on urban planning, landscaping, architecture and art are supplemented with box texts on specific buildings and architects. Alongside well-known names like Gerrit Rietveld and Piet Elling, one name in particular stands out, that of Helene Hulst-Alexander, at that time one of the few women architects and the designer of a block of flats for single – working – women (1958). The initiative for this building came from an action committee, the Nederlandse Bond voor Maatschappelijk Werkers (Dutch Union of Social Workers), whose members included other modern-minded women, among them Truus Schröder-Schräder.

New experiments that started to impact housing construction from the 1960s onwards are discussed in the chapter on Overvecht, a district more likely to evoke an image of monotonous, modernist open-row housing and high-rise. But in this instance the neighbourhood concept merged seamlessly into sector plans, standard dwelling plans and organized consultation. The result can be seen in experimental apartment buildings with flexible floor plans and a large communal space on every floor, which even made it into the pages of the popular women's magazines *Libelle* and *Magriet* in 1971. *Utrecht bouwt 1945-1975* shows that it was not so much architecture as the socio-political and societal context that was on the cusp of a period of great change. In Utrecht this was most evident in the historical city centre where modernization in the form of the Hoog Catharijne project had the unanticipated effect of boosting the preservation of and concern for the historical city.

Post 65 – een turbulente tijd. Architectuur en stedenbouw in Den Haag 1965-1995 (Post 65 – a turbulent period. Architecture and urban planning in The Hague 1965-1995) by Judith van Hoogdalem and Botine Koopmans also begins after the Second World War, with W.M. Dudok's (unrealized) *Structuurplan Groot 's-Gravenhage* (structural plan for the Hague agglomeration) from 1946. In the following decades various new versions of the plan (renamed *Ontwerp-Structuurplan*) were published, as well as a plethora of policy, redevelopment, traffic and transport memoranda that would come to characterize this 'turbulent' period in the city's history. Initially, the city was slow to abandon monofunctional development ideas. The regeneration and redevelopment of the city centre and the construction of new districts had after all provided a solution to the housing shortage and a much-needed overhaul of outdated and poorly maintained working-class districts like Schilderswijk, Kortenbos or Spuikwartier. But in the face of mounting dissatisfaction among the population and active resistance from local residents, action groups, committees and working groups, the focus gradually shifted to living in the city centre, live-

ability, the human scale and the preservation of the qualities of the historical areas of the city.

The authors give repeated and lengthy consideration to sundry variations and versions of policy plans and consultation procedures, which does not always make for easy reading. We do, however, get a clear idea of the important role played by district representatives, action committees and groups of (young) architects – such as Dooievaar – in the decision-making processes and projects, and of the city council's increasing efforts to organize consultation effectively and to involve local residents in plans for their district. One resident and ex-activist was moved to complain about the incessant 'stupid consultation group meetings'; it didn't leave him any time for demonstrating!

The book's organization is somewhat confusing. While the main focus is on housing, with developments between 1965 and 1995 discussed in relation to various districts, the main text is divided into seven chapters with disparate themes and titles. Some relate to particular districts, others to urban renewal, green and public space, or the 'from brown to white' interior. Interspersed between the chapters are interviews with leading architects from this turbulent period. Because the book lacks a general map of the city and its districts, readers who are not familiar with The Hague will find it rather difficult to follow.

One chapter is devoted to the stylistic characteristics of the period 1965-1995. The authors identify an early Post 65 architecture, which still bears a strong resemblance to the modernist post-war reconstruction style, such as the Leyenburg Ziekenhuis by the architect K.L. Sijmons and the office building next to the Den Haag CS station by the architects K. van der Gaast and J. Bak. The 1970s style is encapsulated with the catchphrase 'bevelled and brown', as seen in various brick housing schemes with bevelled corners and white concrete bands and balconies. The 1980s usher in an architecture of 'taut design, extensive glazing, glass blocks and plastic', evident in the many buildings clad with plastic (Trespa) facade panels and also known as 'drawing-pin architecture' on account of the numerous visible rivets. Several government offices, including Arie Hagoort's Koninklijke Bibliotheek (National Library of the Netherlands) complex, clearly date from this period. When it comes to late Post 65 architecture the authors reference alderman Adri Duivesteijn's 1985 campaign, *Stadsvernieuwing als Kulturele Aktiviteit* (Urban renewal as cultural activity), which drew well-known Dutch and foreign architects of the likes of Jo Coenen, Aldo Rossi and Álvaro Siza to The Hague to supercharge the (in his view disappointing) quality of urban renewal. These stylistic indicators may well help readers to recognize Hague architecture realized between 1965 and 1995, and even outside The Hague 'bevelled and brown' and 'taut, glass and plastic' will strike a familiar chord. On the whole, however, a stylistic history does not do full justice to the character of Post 65 architecture. The books on Utrecht and The Hague present a detailed picture of the second half of the twentieth century in these cities and can serve as useful reference works for further research, but they do not indicate a direction for such research to follow.

That absence is made good in *Experimentele woningbouw in Nederland 1968-1980. 64 gerealiseerde woonbeloften* (Experimental housing in the Netherlands 1968-1980. 64 realized housing promises) by Marcel Barzilay, Ruben Ferwerda and Anita Blom. This book describes the background, plans, construction, development and evaluation of the Programma Experimentele Woningbouw (experimental housing programme), as well as addressing questions concerning the current values, necessary interventions and future possibilities and challenges of the projects. In his foreword, former Government Architect Floris Alkemade rightly describes the book as a superb overview and a source of inspiration for current designers.

Set up in 1968 by the Minister of Housing and Spatial Planning, W.F. Schut, the Programma Experimentele Woningbouw ran until 1980. A special financial arrangement provided for the realization of 64 experimental housing projects that offered good quality alternatives to the monotonous post-war reconstruction architecture. A map at the front of the book shows the distribution of these experiments across the Netherlands. They were concentrated in the west and middle of the country; the far north, south and Zeeland were sparsely endowed. After a general chapter on the background, phasing, development, completion and evaluation of the programme, the 64 projects are considered in six comprehensive chapters covering the outer suburbs, the existing city, the dwelling, multi-level construction, specific target groups, and experiments with consultation and adaptability. This arrangement covers a wide range of aspects that cropped up in experimental housing and that subsequently became synonymous with the 1970s: home zone and cauliflower street plan, flexible floor plans and building systems, collective or conversely individual living arrangements, resident participation, child-friendliness, and alternative materials and construction methods. Some felt that these experiments went too far, however. The architect Carel Weeber coined the term 'New Frumpishness' to anathematize this architecture.

Even though it is confined to projects officially designated 'experimental', some of which, like Piet Blom's cube houses, were not widely imitated, the book is a real nostalgia fest. Similar 'meeting squares', decked

housing, pedestrianized streets, terrace dwellings, residential communities, patio dwellings and creatively staggered housing blocks sprang up all over the Netherlands during this period. The wealth of visual material is certain to evoke memories for many Dutch readers because it presents an almost identical version of their own living environment. It also shows how attractive the dwellings and how leafy the neighbourhoods have become, although one can't help noticing a certain lack of design quality in the glass-roofed stairwells, the idiosyncratic storage sheds, the dark doorways and steep staircases.

The authors discuss the specific characteristics that made the projects so experimental and innovative. The condensed accompanying texts contain a lot of information about the realization, architects, spatial layout, housing density, floor plans, access strategies, and changes up to the present day. These explanatory notes are, together with the photographs, indispensable. Take the Sterrenbuurt in Berkel en Rodenrijs, which is described as one of the better examples of experimental housing and which attracted a lot of attention from the very outset. In 1972 one newspaper noted that 'housewives flock to have a look, professionals from all over the place, directors of public works and architects ensure a constant flow of visitors'. The neighbourhood is still in fine condition and according to the notes there are no signs of the initially feared degradation. The aesthetically photographed decks and dark passageways reveal nothing of the use or the liveability of neighbourhood. In this respect the text and images are out of sync. True, we see parked cars, wheelie bins and the odd bicycle, but there is scarcely a human being to be seen. This is a missed opportunity, because when people are in shot, we learn more about the way the architecture really functioned. A 1974 black and white photo of the experimental apartment building in the Utrecht district of Overvecht shows in a single glance the flexible layout of the apartment and the use of the bar (complete with bar stools). The same photo appears in *Utrecht bouwt 1945-1975*. Its caption in that book would be hard to beat for pithiness: 'Sliding doors could connect the bedrooms to the living room, while the "bar-kitchen" was all the rage in 1974.'

MARIE-THÉRÈSE VAN THOOR

ARJAN DEN BOER, BART VAN HOEK, MARTIJN HAAN,
MARTJAN KUIT AND TEUN MEURS

BRUUT
ATLAS VAN HET BRUTALISME IN NEDERLAND

Zwolle (WBooks), 2023, 320 pp.,
ills. in black & white and colour,
ISBN 9789462585379, €69.95

A book of significant weight and size is often jokingly referred to as a 'doorstop'. Monographs of architects or buildings have a tendency to turn out heavy and bulky; they don't sit comfortably in the hand and are a pain to take on one's travels, should the contents inspire one to do so. They do, however, look rather impressive on bookshop counters and on clients' desks. And it has to be said: on paper architecture is at its best in a large format and with razor-sharp pictures. The choice of the 'doorstop' format is highly appropriate for *BRUUT. Atlas van het brutalisme in Nederland*. Concrete is after all the main subject of this hefty tome, compiled by five devotees of this much-maligned material. 'A book that feels like a robust handshake,' according to architecture journalist Kirsten Hannema in her introductory essay, referencing the overpowering initial impression that brutalist buildings can have on people. They are unignorably present, indomitable and implacable, but on further acquaintance they often reveal their charm, beauty and tactility. 'A building you must dare to love,' Tracy Metz once wrote of the American embassy in The Hague, a design by Marcel Breuer and one of the hundred buildings in the book.

The editors hope that the selection of buildings featured in *BRUUT* will contribute to the revaluation of brutalism. They are tapping into the recent uptick in interest in brutalist architecture on social media, which they themselves have helped foster and where they discovered one another. But there are also a growing number of physical publications on brutalist architecture in neighbouring countries, the absolute front runner being the United Kingdom. Every self-respecting bookshop or museum shop in London boasts a shelf filled with more or less serious works on that country's brutalist heritage. One of the most penetrating and entertaining of these is *Raw Concrete. The Beauty of Brutalism* (2016) by Barnabas Calder. It is hardly surprising that England is in the vanguard of such studies, given that brutalism is bracketed with the creation of the welfare state in the post-war decades and with the emergence of a completely new generation of architects. Alison and Peter Smithson are regarded as the founders of New Brutalism and their 1953 Hunstanton School is seen as marking the beginning of a new era. The authors of *BRUUT* rightly note that while brutalism in the Netherlands was never on the same scale as in the UK, it is certainly possible to find buildings deserving of the name.

That of course brings us to the big question of what precisely the definition of brutalism is. According to the authors there is no unanimous definition, rather a diffuse idea of what it could be. The popular Facebook group, The Brutalism Appreciation Society, thinks it is unfinished materials, unconventional forms, heavy materials and an air of inscrutability in the architecture. In the *Atlas of Brutalist Architecture* (2018), a comprehensive reference work featuring examples from 108 countries, the use of exposed concrete is not mandatory but notions like provocative, sculptural, brazenly evident and self-satisfied are associated with brutalism; characteristics that describe what the buildings' aura or the impression they make. The idea

that brutalism is not about the materials as such, but about the expressiveness was established back in 1955 by the architecture critic Reyner Banham. The editors of *BRUUT* reference his famous *Architectural Review* essay in which he was the first to refer to brutalism as a new movement in architecture. Banham characterized brutalist buildings as memorable objects that display their structure and in which materials are true to themselves, but he also cited other characteristics, such as brutal, uncompromising and unyielding.

According to the authors, the definition of brutalism is 'not set in concrete' but open to interpretation. This afforded them the freedom to posit their own concept of brutalism, which they encapsulated in five attributes. These attributes, or rather criteria, constitute the yardstick by which they judged a longlist of over five hundred buildings, eventually ending up with the selected one hundred most brutal buildings in the Netherlands. The criteria were in turn transposed into the acronym BRUUT. On the face of it a bright idea, but one that can sometimes come across as a bit forced. The B stands for *beton* ('concrete' in Dutch) and although all manifestations are embraced, the motto is 'the rawer, the better'. This is further emphasized by the R for *ruw* ('raw' or 'rough'), referring to unfinished surfaces and honest materials. What materials these might be apart from concrete, is not mentioned. The first U stands for the *uitgesproken* ('explicit') way in which the structure is revealed and sometimes accentuated. The latter recurs in the second U for *ultra*, which stands for big, heavy, massive and imposing with grotesque, sculptural forms. The T completes the acronym and refers to *textuur* ('texture'): how surfaces feel and reveal visual patterns. The one hundred selected buildings tick at least two boxes while the highlighted top twenty most brutal structures score on all five criteria. The editors have not fixated on the number of ticks, however. They felt it was also important that a building be redolent with the 'spirit of Le Corbusier', one of the founders of brutalism. It is a pity that they do not explain exactly what this entails, but it no doubt has to do with the provocative, bloody-minded and uncompromising demeanour of his architecture. It is precisely that expressive punch that makes brutalist buildings so imposing.

As befits an atlas, the selected projects are arranged according to region, revealing that the provinces of North and South Holland have the most to offer on the brutalist front. Nevertheless, the editors have managed to include a few often unknown, but equally interesting projects in the furthest reaches of the country or outside the urban area, like the Hogelanden office building in Farmsum, Groningen, the Oda apartment building in rural Sint-Oedenrode, and the look-out post in the infrastructural landscape of the Volkerak Locks. And there are surreptitiously many more than a hundred buildings because the thematic chapters about housing, office buildings, school buildings and so on are also illustrated with projects that did not make the cut or have since been demolished. The book also contains a glossary and five pen portraits of brutalist figureheads and prolific brutalist designers, with the relatively unknown Sier van Rhijn emerging as an unexpected star. The portraits provide insight into their oeuvres and point out that the 'brutalist' label was often applied retrospectively to their work. It is not a clear-cut building style, but overlaps with several trends in architecture, such as large-scale post-war modernism as well as small-scale structuralism.

In the introduction the editors describe *BRUUT* as an initial attempt to produce an inventory of brutalist architecture in the Netherlands. That is selling their work short, however. It is a huge achievement to have organized and synthesized so much information about one hundred buildings into lively texts. The real pleasure of the book lies in those hundred descriptions. Although they vary in length, structure and depth, they are packed with nuggets of information that not only elucidate the brutalist aspects of the buildings, but also consider the spatial context, their backstories, the furore they caused and the witty nicknames they attracted (radiator, concrete court – the Dutch *betongerecht* is a play on *kantongerect* or cantonal court). Together with the superb photographs they tell part of the story of one of the most consequential periods in the spatial and architectural development of the Netherlands. That story deserves to be kept alive because in spite of the growing interest in brutalism as a relevant and substantial part of the Post 65 period, its survival is still often uncertain. The old Royal Conservatoire building in The Hague has already fallen prey to the wrecking ball and more will surely follow. It is with good reason that the books' authors are keen to contribute to the revaluation of brutalism. With *BRUUT* they have laid a strong foundation for that endeavour.

WIJNAND GALEMA

BURGY

KLASSIEK BOUWEN

Burgy werkt in Den Haag aan de restauratie van de Bijenkorf.

www.burgy.nl

architectenbureau

Vroom

restauratie van een achttiende-eeuwse rococozaal

AHH van **Post65** tot in de toekomst

This issue is co-funded by

Rijksdienst voor het Cultureel Erfgoed
Ministerie van Onderwijs, Cultuur en Wetenschap

Hendrik Muller fonds

EFL STICHTING

Images cover
Front cover: Herman Hertzberger draws the transformation of Centraal Beheer, 2023 (still from the documentary *The Proof of the Pudding van Herman Hertzberger* by Patrick Minks, Jaap Veldhoen and Wouter Snip)
Back cover: Public Works, urban planning department, Oostgaarde zoning plan, 1975 (Gemeentearchief Capelle aan den IJssel)

9 789083 386102