



DUTCH STRUCTURALISM

– THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

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Luzern

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VORWORT

Prof. Dr. Oliver Dufner, Dr. Marcel Bächtiger, Dipl. Ing. MAS Caroline Ting

Horw, Januar 2022

Unser Interesse, anhand eines thematischen und zeitlichen Fokus den Paradigmenwechseln in der Architekturgeschichte auf den Grund zu gehen, bildet auch in diesem Semester die Basis unserer Recherche. Nach der Beschäftigung mit der Schweizer Architektur um 1968 im Spannungsfeld von Bauboom und Gegenkultur blicken wir in diesem Semester auf die Architekturdebatte in Holland der 1960er und 1970er Jahre.

Prägender Ausgangspunkt dieser Entwicklung waren dabei die von „Team 10“ aufgeworfenen Fragestellungen. Die Schriften, Projekte und Aktionen einer losen Organisation junger Architektinnen und Architekten um Jaap Bakema, Aldo van Eyck und Alison und Peter Smithson gelten heute als wichtiger Ausdruck der Neuausrichtung der internationalen Architekturdiskussion in den 1950er und 1960er Jahren. Sie stehen für den Übergang von den städtebaulichen Prinzipien der klassischen Moderne zu einer komplexeren Auffassung des menschlichen Zusammenlebens.

Ihren Anfang nimmt das „Team 10“ in der holländischen Kleinstadt Doorn, wo 1954 sechs Architekten zusammenfinden, um eine Kritik an den „Congrès Internationaux d'Architecture Moderne“ (CIAM) zu formulieren. Die CIAM waren seit ihrer ersten Durchführung 1928 die wichtigste Austausch- und Diskussionsplattform der Modernen Bewegung, und ihre Publikationen übten grossen Einfluss auf viele Architekturschaffende und politische Verantwortungsträger aus. Dies gilt insbesondere für die massgeblich von Le Corbusier geprägte „Charta von Athen“, die auf den Kongress von 1933 (CIAM IV) zurückgeht und eine nach Funktionen getrennte Stadt postulierte. Zusammen mit dem Ideal grosser Wohnblöcke im Grünen war damit die städtebauliche Doktrin der Nachkriegsmoderne festgelegt, die vielerorts ihre baulichen Spuren hinterliess.

Hier setzen die jungen Architekten in Doorn mit ihrer Kritik an: Die „Charta von Athen“, schreiben sie, sei zwar verständlich als Reaktion auf das Chaos der Stadt des 19. Jahrhunderts, habe sich aber als falsche Methode für die Stadt des 20. Jahrhunderts herausgestellt. Die Gruppe schlägt andere Planungskriterien, andere Betrachtungsschwerpunkte, andere Untersuchungsmethoden und andere städtebauliche Lösungen vor. Ihnen geht es um einen gleichzeitig ganzheitlicheren und spezifischeren Blick auf den Ort, auf die dort lebenden Menschen und die Art und Weise, wie diese mit ihrer gebauten Umwelt interagieren. Sie interessieren sich für die Beziehung zwischen dem Einzelnen und der Gemeinschaft, zwischen Haus und Stadt.

Der Name „Team 10“ leitet sich aus der Aufgabe ab, die der kritischen Gruppierung vom CIAM-Leitungsausschuss verliehen wurde: der Vorbereitung

des zehnten CIAM-Kongresses (CIAM X), der 1956 in Dubrovnik stattfindet. Die Übergabe der Organisation an die junge Generation bedeutet allerdings gleichzeitig ihr Ende: Der zehnte CIAM-Kongress ist auch der letzte.

Viele Forderungen, die vom Team 10 vorgebracht worden sind, weisen bereits auf den Paradigmenwechsel hin, der in den Jahren nach 1968 die Architekturszene erfassen wird: die Partizipation der breiten Gesellschaft am Planungsprozess, die ökologische Auffassung der menschlichen Behausung als „Habitat“, die Akzeptanz von Zufälligkeit, Spontaneität und Improvisation oder das Interesse an der spielerischen Nutzung von öffentlichen Räumen, wie sie bei Kindern zu beobachten ist.

Besonders bei den Holländern um Aldo van Eyck (1918-1999) und Jaap Bakema (1914-1981) zeigt sich ein ausgeprägtes Interesse am Alltagsleben und am menschlichen Massstab. In klarer Abgrenzung zur abstrakten Ästhetik der Moderne, die Siegfried Giedion als Verknüpfung von Raum und Zeit dargestellt hat, schreibt van Eyck: „Was immer auch Raum und Zeit bedeuten, Platz und Gelegenheit bedeuten mehr. Denn Raum ist in der Vorstellung des Menschen Platz, und Zeit ist in der Vorstellung des Menschen Gelegenheit.“ Folgerichtig sind die Mitglieder des Team 10 weniger an den formalen oder ästhetischen Aspekten von Architektur interessiert, sondern vielmehr an Erkenntnissen aus der Soziologie oder der Anthropologie; Begriffe und Ideen wie Identität, Zugehörigkeit oder Nachbarschaft treten auf den Plan. Das Interesse an zwischenmenschlichen Beziehungen zieht auch andere Entwurfsmaximen nach sich: Nicht die Gestaltung des einzelnen Objekts ist massgebend, sondern die sorgfältige Organisation von Räumen und deren Beziehungen untereinander. Damit ist in den Ideen von Team 10 auch die Grundlage gelegt für die Bauten und Planungen, die unter der Bezeichnung „Strukturalismus“ in die Geschichte eingegangen sind.

Dabei war der Strukturalismus nicht allein eine Bewegung innerhalb der Architektur, sondern manifestierte sich auch in den Bereichen Linguistik, Philosophie und Anthropologie. So etablierte der französische Ethnologe und Anthropologe Claude Lévi-Strauss (1908–2009) in seinem Schlüsselwerk «Tristes Tropiques» (1955), eine strukturalistische Theorie, die sich unter anderem auf Ferdinand de Saussures (1857- 1913) Strukturalismus in der Linguistik bezieht. Dessen Arbeit hatte auch einen grossen Einfluss auf die holländischen Architekten Mitte des 20. Jahrhunderts, welche seine Begrifflichkeiten in Ihren Entwürfen und Theorien adaptierten.

Die Erweiterung des Denkens in andere Disziplinen zeigt sich exemplarisch im Werk von Aldo van Eyck. Dieser hatte ein Interesse an der anthropologischen Bedeutung von Bauten der Frühkulturen und forschte insbesondere zu den Behausungen der Dogon in Westafrika. Auf der Basis einer vertieften anthropomorphen Recherche entschlüsselte er dort die Logik und Bedeutung der Raumanordnung in den archetypischen Wohnhäusern sowie deren Addition zu Siedlungsstrukturen. Diese Erfahrungen prägten sein eigenes Werk nachhaltig. So zeigten bereits die ersten Schulbauten Ansätze einer Anordnung einzelnen Volumen, die sich aus den inneren Bedingungen ergaben und weniger aus dem Anspruch einer klar ablesbaren Gesamtform. Die Parole „Das Haus ist eine kleine Stadt“ bildete eine zentrale Prämisse seines Entwurfs für das Waisenhaus in Amsterdam (1957-60), dessen Räumlichkeit differenziert auf die Wahrnehmung und die funktionalen Bedürfnisse der Kinder abgestimmt ist. Van Eycks Bauten sind darüber hinaus geprägt durch ein Interesse an Übergangsräumen. „The Shape of In-Between“ wie er es nennt, vermittelt bzw. zwischen Innen und Aussen oder zwischen verschiedenen Raumkategorien. Gut sichtbar ist diese Methodik beispielsweise im Somsbeek Ausstellungspavillon in Arnheim (1965-66) oder dem Hubertus Haus für Mutter und Kind in Amsterdam (1973-81).

Aldo van Eycks Unterricht an der Amsterdam Academy of Arts hat aber auch

einen signifikanten Einfluss auf die Nachfolgeneration von Architekten, wie bspw. auf Piet Blom (1934-1999). Dessen Studentenprojekt Noah's Ark (1962) präsentiert van Eyck am Team 10 Meeting in Royaumont und löst damit eine kontroverse Debatte aus. Blom entwickelt darin ausgehend von einer städtebaulichen Analyse Amsterdams eine neue Stadtstruktur, welche auf den städtebaulichen Prämissen van Eycks aufbaut. Mit seinem strukturalistischen Ansatz zeigt Blom die Limiten der Architektur in der Planung des sozialen Lebens aufzeigen. In klarer Abgrenzung zur funktionalistischen Methode richtet sich sein Interesse auf das wechselseitige Zusammenwirken von städtischer Struktur, öffentlichem Leben und privatem Raum. Von den Architekten verlangt er das Schaffen einer räumlichen und strukturellen Beziehung zwischen dem Ganzen einer Siedlung und der einzelnen individuell genutzten Einheit. Exemplarisch für diese Haltung sind seine Wohnprojekte in Helmond (1974-77) und in Rotterdam (1978-84) die auf dem Prinzip des Kubuswohnen basieren.

Die Bedeutung eines aktiven Einbezugs des Menschen in die Planung der Städte und Wohnbauten hatte bereits John Habraken (*1928) Anfang der 1960er Jahre erkannt. In seiner Schrift „De Draggers and the mensen“ (1961) argumentiert Habraken, dass ein Heim nicht allein durch architektonische Mittel geschaffen werde, sondern der physischen Interaktion von Mensch und Material bedarf. Er versteht sein Manifest als Kritik an den generischen grossmassstäblichen Planungen der 1950er Jahre und plädiert für eine aktive Partizipation der Bewohner im Hinblick auf den späteren Gebrauch und die Aneignung der Räume, was sich in seinen Augen auch in der Qualität des städtischen Zusammenlebens niederschlägt.

Habrakens Denken findet breite Resonanz bei Architekten wie Joop Bakema und auch Herman Hertzberger (*1928). So publizieren Bakema wie Hertzberger ausgehend von Habrakens Theorie in der Architekturzeitschrift «Forum» Texte, in denen historische Beispiele wie der Diokletianpalast in Split und die Arenen in Arles und Lucca als exemplarische Beispiele für eine Transformation und Weiterentwicklung städtischer Strukturen dienen. Hertzberger bezeichnet dabei die „Wechselseitigkeit der Form“ und „Identität der Bewohner“ als zentrales Element dieser Strukturen und legt damit eine argumentative Basis für sein eigenes entwerferisches Werk. So zeichnet sich das Studentenheim in Amsterdam (1959-1966) durch eine Raumstruktur aus, die dem Bewohner eine differenzierte Wahrnehmung der öffentlichen Bereiche des Hauses und des Aussenraums sichert. Im Bürokomplex Centraal Beheer (1968-1972) in Apeldoorn entwickelt Hertzberger ein strukturalistisches Grundprinzip, welche durch die Bildung „Polyvalenter Räume“ den Nutzern ermöglicht, ihr Arbeitsumfeld nach den individuellen Bedürfnissen zu gestalten.

Aus heutiger Perspektive erscheinen viele Themen, die im Umfeld des holländischen Strukturalismus verhandelt wurden, erstaunlich aktuell: Das Denken von Habraken und die Bauten von Hertzberger stehen am Anfang einer Partizipationsbewegung, die bis heute wirkt und die Debatte insbesondere zum Wohnungsbau mitprägt. Die Wechselwirkung zwischen räumlichen und zwischenmenschlichen Beziehungen erfährt in der Folge der fortschreitenden innerstädtischen Verdichtung neue Aufmerksamkeit. Und nicht zuletzt weist die ganzheitliche Betrachtung der menschlichen Behausung, wie sie vom Team 10 unter dem Begriff «Habitat» postuliert wurde, auf die heutigen Ideen einer Umgestaltung unserer Lebensumwelt im Sinne der Nachhaltigkeit und Ökologie hin. Die architekturhistorische Beschäftigung mit dem holländischen Strukturalismus ermöglicht deshalb auch eine fundierte und kritische Auseinandersetzung mit aktuellen Tendenzen im städtebaulichen und architektonischen Diskurs.

Das Semester gliedern wir wiederum in drei Abschnitte: Zunächst erarbeiten wir uns mittels Lektüre und gemeinsamer Diskussion von Texten verschiedener Autoren und Inputreferaten einen Überblick sowie ein Vokabular,

um das Thema zu verstehen, einzugrenzen, und für unsere eigene Argumentation nutzbar zu machen. Integraler Bestandteil unserer Recherche ist die Seminarreise im Mai nach Holland, wo wir exemplarische Bauten des Strukturalismus besuchen werden und dabei sicher auch deren Relevanz für den heutigen Diskurs erörtern können.

Dieses Wissen dient als Grundlage für die eigenständige schriftliche Auseinandersetzung mit einem selbst gewählten Aspekt zum Thema, das in Form eines Vortrages präsentiert wird. In der dritten Phase werden die formulierten Thesen weiter verfeinert, als umfangreiche Textarbeit in eine verbindliche schriftliche Form gebracht und als kurzer Vortrag dem Plenum von Student*innen und Expert*innen präsentiert.

PREFACE

Prof. Dr. Oliver Dufner, Dr. Marcel Bächtiger, Dipl. Ing. MAS Caroline Ting

Horw, January 2022

Our interest in adopting a thematic and temporal focus to get to the bottom of the paradigm shifts in the history of architecture also forms the basis of our research this semester. After examining Swiss architecture around 1968 in the conflicting context of building boom and counter-culture, this semester we will be looking at the architectural debate in Holland in the 1960s and 1970s. 'Team 10' raised the questions that were the formative starting point for this development. The writings, projects and activities of a loosely knit organisation of young architects associated with Jaap Bakema, Aldo van Eyck and Alison and Peter Smithson are today regarded as important manifestations of the new orientation in the international architectural discussion in the 1950s and 1960s. They represent the transition from the urban planning principles of classical modernism to a more complex conception of human coexistence.

'Team 10' began in the small Dutch town of Doorn, where six architects came together in 1954 to draft a critique of the Congrès Internationaux d'Architecture Moderne (CIAM). CIAM has been the most important exchange and discussion platform of the modernist movement since the first congress in 1928, and CIAM's publications exerted a great influence on many architects and political decision makers. This is particularly true of the Athens Charter – in which the stamp of Le Corbusier is unmistakable and which dates back to the 1933 congress (CIAM IV) – that postulated the separation of the parts of a city according to function. Together with the ideal of large apartment blocks in the countryside, this established the urban planning doctrine of post-war modernism and left its architectural imprint in many places.

This is where the young architects in Doorn come in with their critique. The Athens Charter, they write, is understandable as a reaction to the chaos of 19th-century cities, but it has turned out to be the wrong strategy for 20th-century cities. The group proposes other planning criteria, other focal points to be considered, other research methods and other urban planning solutions. They are interested in a simultaneously more holistic and more specific view of place, of the people who live there and the way they interact with their built environment. They are interested in the relationship between individuals and the community, between houses and the city.

The name 'Team 10' is derived from the task given by the CIAM executive body to the critical grouping: the preparation of the tenth CIAM (CIAM X), which took place in Dubrovnik in 1956. However, handing the organisation over to the younger generation also meant its end: the tenth CIAM was also the last.

Many of the demands that Team 10 put forward already point to the paradigm shift that would influence the architectural scene in the years after 1968: the

participation of society at large in the planning process, the ecological conception of human dwelling as 'habitat', the acceptance of chance, spontaneity and improvisation, or the interest in the playful use of public spaces as can be witnessed in the example of children.

Particularly the Dutch associated with Aldo van Eyck (1918–1999) and Jaap Bakema (1914–1981) display a pronounced interest in everyday life and human scale proportions. Clearly distancing himself from the abstract aesthetics of modernism, which Siegfried Giedion has portrayed as a link between space and time, van Eyck wrote: 'Whatever space and time mean, place and occasion mean more. For space in our image is place, and time in our image is occasion.' Consequently, the members of Team 10 were less interested in the formal or aesthetic aspects of architecture, and rather in insights from sociology or anthropology; notions and ideas such as identity, belonging or neighbourhood come into play. The interest in interpersonal relationships also entails other maxims of design: it is not the design of the individual object that is decisive, but the careful organisation of spaces and their relationships to one another. Team 10's ideas thus also laid the foundation for the buildings and planning that have gone down in history as examples of 'structuralism'.

Structuralism was not only a movement within architecture, but also manifested itself in the fields of linguistics, philosophy and anthropology. For example, the French ethnologist and anthropologist Claude Lévi-Strauss (1908–2009) established a structuralist theory in his key work *Tristes Tropiques* (1955), which takes recourse to, among others, Ferdinand de Saussure's (1857–1913) structuralism in linguistics. His work also had a great influence on Dutch architects in the mid-20th century, who adapted his concepts to their designs and theories.

Aldo van Eyck's work exemplifies expanding thought into other disciplines too. He was interested in the anthropological significance of buildings of early cultures and researched, in particular, the dwellings of the Dogon in West Africa. Based on in-depth anthropomorphic research, he deciphered the logic and meaning of spatial arrangements in archetypal dwellings and their addition to settlement structures. These experiences had a lasting influence on his work. Thus, already the first school buildings reveal the beginnings of an arrangement of individual volumes that resulted from the interior conditions and less from the demand for a clearly readable overall form. The slogan 'A house must be like a small city' formed a central premise of his design for the orphanage in Amsterdam (1957–60); in its space is differentiated to suit the perception and functional needs of the children. An interest in transitional spaces is also characteristic for Van Eyck's buildings. 'The shape of the in-between', as he called it, mediates between inside and outside or between different categories of space. This methodology is clearly visible, for example, in the Sculpture Pavilion of the Somsbeek Exhibition in Arnhem (1965–66) or the Hubertus House for single parents and their children in Amsterdam (1973–81).

Aldo van Eyck's teaching at the Amsterdam Academy of Arts also had a significant influence on the next generation of architects, such as Piet Blom (1934–99).

Van Eyck presented Blom's student project, Noah's Ark (1962), at the Team 10 meeting in Royaumont and triggered a controversial debate.

In his project, Blom develops a new urban structure based on an urban planning analysis of Amsterdam, which builds on the premises of van Eyck's urban planning ideas. Blom, with his structuralist approach, demonstrates the limits of architecture in the planning of social life. In clear contrast to the functionalist method, he focuses his interest on the mutual interaction of urban structure, public life and private space.

He demands that architects create a spatial and structural relationship between a housing estate as a whole and the single individually used unit. His housing projects in Helmond (1974–77) and Rotterdam (1978–84), which are

based on the principle of cube houses, are exemplary for this attitude.

John Habraken (b. 1928) already recognised in the early 1960s the importance of actively involving people in the planning of cities and residential buildings. In his book *De dragers and the mensen* (1961), Habraken argues that a home is not created by architectural means alone, but requires the physical interaction of people and materials. He understands his manifesto as a critique of the generic large-scale planning of the 1950s and advocates the active participation of the residents with regard to the subsequent use and appropriation of space, which, in his eyes, also enhances the quality of urban coexistence. Habraken's ideas found a wide echo among architects such as Joop Bakema and Herman Hertzberger (b. 1928). Based on Habraken's theory, Bakema and Hertzberger published texts in the architectural journal *Forum*. There they give historical examples such as Diocletian's Palace in Split and the arenas in Arles and Lucca, which, as they see it, serve as outstanding examples for the transformation and further development of urban structures. Hertzberger refers to the 'reciprocity of form' and the 'identity of the inhabitants' as the key elements of these structures and, in this way, also presents an argumentative foundation for his own design work. The student residence in Amsterdam (1959–66), for example, is characterised by a spatial structure that offers residents a differentiated perception of the public areas of the building and the outdoor space. In the *Centraal Beheer* office complex (1968–72) in Apeldoorn, Hertzberger developed a structuralist basic principle which, through the creation of 'polyvalent spaces', enables the users to design their working environment according to their individual needs.

From today's perspective, many of the topics that were negotiated in the environment of Dutch structuralism seem astonishingly relevant: Habraken's theory and Hertzberger's buildings stand at the beginning of a participation movement that continues to have an impact today and helps shape the debate, especially on housing construction. The interaction between spatial and interpersonal relationships is receiving new attention as a result of increasing inner-city density. Last but not least, the holistic view of human dwellings, as put forward by Team 10 under the term 'habitat', points towards today's ideas of transforming our living environment in terms of sustainability and ecology. The preoccupation with Dutch structuralism by means of the history of architecture therefore also enables a well-founded and critical examination of current trends in urban planning and architectural discourse.

GÄSTE – GUESTS

VORTRÄGE – LECTURES

Dr. Alejandro Campos Uribe

Post-doc TU Delft

Amsterdam's Orphanage, a house is a small city, a city is a big house

Dr. Prof. Annie Pedret

Arch. SMArchS

Team 10: An Archival History

Prof. Herman Hertzberger

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Lecture for the students of Luzern

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HERTZBERGERS VERTIKALER STRASSENRAUM

EINE UNTERSUCHUNG DER VERTIKALEN ERSCHLIESSUNG ALS
ZENTRALER SOZIALER RAUM

Von Rebecca Baer

ABSTRACT

Die vorliegende Arbeit befasst sich im Rahmen des Moduls Vertiefungsarbeit unter dem Überthema *Niederländischer Strukturalismus – der Mensch im Mittelpunkt von Haus und Stadt* mit den zentralen vertikalen Räumen in der Architektur von Herman Hertzberger und deren Qualitäten als Bereich für zwischenmenschliche Interaktion. Im Zentrum dieser Arbeit steht die Analyse der vertikalen Erschliessungsräume in den Projekten Diagoon Wohnhäuser, Apollo Grundschulen, Bürogebäude Centraal Beheer und dem Vredenburg Musikzentrum. Anhand von den drei Untersuchungsgegenständen Erschliessung, Blickbeziehungen und Rückzug und Aussicht wird mit Plänen, Skizzen und Photographien aufgezeigt, wie die vertikale Erschliessung in Hertzbergers Projekten die Bildung von sozialen Kontakten unterstützt und das Potential der Verkehrsflächen als Katalysator für Kommunikation und als Aufenthaltsraum erhöht wird. Es zeigt sich, dass für unterschiedliche Gebäudenutzungen und Gruppengrößen auch verschiedene räumliche Qualitäten, Durch- und Ausblicke, sowie Raumanordnungen nötig sind, damit die Entstehung von zwischenmenschlichem Austausch und zufällige Begegnungen begünstigt werden.

Vertiefungsarbeit Frühlingsemester 2022
In-depth Study spring semester 2022

Hertzbergers Vertikaler Strassenraum
Eine Untersuchung der vertikalen Erschliessung
als zentraler sozialer Raum

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1 EINLEITUNG

"Die Treppe ist das Herz eines jeden mehrgeschossigen Baus. Sie pumpt sozusagen Leben in jede Etage. Die Treppe sollte den Bau aus seiner Anonymität befreien und eine innere Ordnung herstellen. Wenn man heutige Bauten betritt, sieht man die Treppen zu Beförderungsmitteln degradiert. Der Aufzug tut ein Übriges. Das Hausinnere wird anonym. Treppen aber sollen Erlebnisse vermitteln – Erlebnisse des Baus und des Raums."



Abb. 1. Grosszügige Treppenanlage im Palazzo dello Spagnolo in Neapel, gebaut 1742

Die Treppe als bauliches Element bildet die Verbindung von mindestens zwei Geschossen. Besonders im Barock und der Renaissance wurde das Ausformulieren von Treppen und dem umgebenden Erschliessungsraum auf die Spitze getrieben. Es entstanden prunkvolle und grosszügige Anlagen im Zwischenraum der eigentlichen Nutzung eines Gebäudes. Wie im Zitat von Helfried Kodré erwähnt, haben die Treppenanlagen in neueren Gebäuden ihre Bedeutung als wichtiges architektonisches Element mehr und mehr verloren. Zunehmend wurden die Erschliessungsflächen reduziert, im Grundriss weniger präsent und die Treppen durch Aufzüge ergänzt, welche diese fast vollständig ersetzen. Heute erfüllen die Erschliessungen oftmals nur noch zwei klare Funktionen: Sie ermöglichen die Mehrgeschossigkeit eines Gebäudes, und dienen als Fluchtweg. Vor allem im Massenwohnungsbau entstanden im Rahmen dieser Entwicklung räumlich, funktional und qualitativ reduzierte Treppenhaus- und Erschliessungsflächen, die eine anonyme und wenig einladende Atmosphäre erzeugten. Mögliche Qualitäten, welche über die Nutzung als reiner Verkehrsraum hinausgehen, wurden vernachlässigt und hinter den wirtschaftlichen Interessen bei der effizienten Planung eines Gebäudes zurückgestellt.



Abb. 2. Aussentreppe zwischen Strasseräum und Gebäudeeingang, Haarlemmer Housing in Amsterdam

Welche Potentiale würden aber in den Verkehrsflächen eines Gebäudes liegen? Die Erschliessung bildet einen räumlichen und sozialen Puffer, eine Art Schwellenraum, zwischen einem öffentlichen, kollektiven Raum und einem intimeren, individuelleren Raum. Dies kann einerseits mit einer Aussentreppe zwischen dem Strassenraum vor einem Gebäude und dem Haus selbst sein, oder andererseits von der Haustüre durch ein Treppenhaus bis zu spezifischen Räumen innerhalb eines Gebäudes. Die Erschliessung wird durch ihre Funktion zu einem Bereich, in dem sich automatisch die Wege sämtlicher Gebäudenutzer*innen kreuzen – eine physische Begegnungszone. Die so entstehenden Möglichkeiten zu sozialem Kontakt lassen den Zwischenraum zu einem sozialen Raum werden.

Erschliessungen so auszuformulieren, dass sie mehr als nur ein Verkehrsraum zwischen Ausgangspunkt und Ziel innerhalb eines Gebäudes sind und soziales Potential bieten, birgt grosse Herausforderungen. Ein Architekt, der sich in seinen Projekten intensiv mit dieser Fragestellung auseinandersetzte, ist der niederländische Strukturalist Herman Hertzberger. Statt herkömmlichen Treppenhäusern finden sich bei Hertzberger helle Atrien und Foyers, die variable Plätze zum Verweilen aufweisen und verschiedenste Blickbeziehungen zulassen. Die vertikale Erschliessung wird als Instrument genutzt, um das Entstehen von sozialen Kontakten leichter und schneller möglich zu machen.

1 Kodré (1983). S.13

1.1 METHODIK UND HYPOTHESE

Die vorliegende Arbeit nimmt sich unter dem Überthema *Niederländischer Strukturalismus – Der Mensch im Zentrum von Haus und Stadt* der Ausformulierung und dem sozialen Potential dieser vertikalen Erschliessungsräume in der Architektur von Herman Hertzberger an. Angefangen bei der Definition des Begriffs *Sozialer Raum* im Allgemeinen und in Texten von Herman Hertzberger und dessen Bedeutung für seine Architektur, wird anhand von vier Gebäuden von Hertzberger die vertikale Erschliessung analysiert. Der Fokus liegt dabei auf den unterschiedlichen funktionalen Aspekten der Räume: der Erschliessung selbst - mit ihren Wegführungen und der Bewegung im Raum, der Zonierung – Bereiche, die zum Weiterlaufen und andere die zum Bleiben anregen und den Blickbeziehungen – oder im gleichen Zug dem Schutz vor Blicken. Es soll aufgezeigt werden, mit welchen räumlichen und gestalterischen Mitteln die vertikale Erschliessung in den ausgewählten Projekten soziale Kontakte und zufällige Begegnungen der Gebäudenutzer*innen fördert und welche Modifikationen jeweils vorgenommen werden mussten, damit der *Soziale Raum* auch bei unterschiedlichen Nutzergruppen und Gruppengrößen funktioniert.



Abb. 3. Zentraler Erschliessungsraum in der Montessori Schule in Amsterdam

2 SOZIALER RAUM

2.1 BEGRIFFSDEFINITION

Seit den 1990er Jahren wird im Rahmen von Stadterneuerungen, öffentlichen Gebäuden und Stadtraumplanungen vermehrt über den Begriff Sozialraum und dessen Ausformulierung bei Neuplanungen diskutiert.² Städte veränderten sich nicht nur äusserlich, durch Modernisierungen oder Wachstum, es entstanden auch Auswirkungen auf das Zusammenleben. Teilweise entwickelten sich dabei durch Segregation anonyme Stadterneuerungen und Ergänzungen, sogenannte Brennpunkte, innerhalb des Stadtraumes. Dies führte schliesslich dazu, dass immer häufiger über die Art und Weise, wie sich Städte entwickeln sollen diskutiert wurde. Der Mensch und sein Zusammenleben rückte vermehrt ins Zentrum einer lebendigen, vielfältigen und lebenswerten Stadtentwicklung.³

Die so aufkommende Fragestellung nach Sozialraum innerhalb der Städte ist zu dem Zeitpunkt keinesfalls neu, jedoch wurde sie erst ab dann auch in wissenschaftlicher Hinsicht untersucht. Während vorher Räume rein durch ihr gebautes Sein Gegenstand der Untersuchung waren, entstanden unter dem Sammelbegriff Sozialraumanalyse wissenschaftliche Betrachtungen der gesamthaften Qualitäten eines Raumes. Diese umfassen neben den geometrischen und atmosphärischen Eigenschaften auch das soziale Potential von Räumen und Plätzen – das als Grundlage für das Entstehen von sozialen Kontakten und somit von Gemeinschaft genannt werden kann.⁴ Die Begriffe Sozialraum und Sozialraumanalyse wurden im Rahmen dieser Entwicklungen zwar oft verwendet, eine allgemein gültige Definition und Präzisierung des Begriffs ist jedoch noch immer schwierig. Dies auch aus dem Grund, da der Begriff sich immer im Spannungsfeld zwischen Stadtsoziologie, Städtebau, Architektur, Geografie, Pädagogik und Sozialer Arbeit befindet.⁵

Spricht man vom Sozialraum, so bezieht sich das im Allgemeinen auf einen sozial konstruierten Raum: einen Lebensraum und einen sozialen Mikrokosmos, in dem sich gesellschaftliche Prozesse entfalten – einen gesellschaftlichen Raum, in dem menschliche Handlungen stattfinden. Der Raum als physisch-materiell-geographische Komponente und die darin entstehenden Kontakte als soziale Komponente beeinflussen sich gegenseitig und fördern durch ihr Wechselspiel die Entwicklung und Nutzung eines bestimmten Raumes. Ein Sozialraum entsteht somit nur durch die Interaktion von mindestens zwei Menschen in einem bestimmten Raum oder an einem bestimmten Ort.

Sozialräume sind dadurch immer Bereiche, an denen Menschen zusammen-treffen, ob bewusst oder unbewusst. Sie sind keiner bestimmten Funktion untergeordnet und lassen sich auch nicht von genau definierten Räumen, wie Wohn- oder Arbeitsräumen oder Verkehrsflächen abgrenzen. Im Grunde genommen können so potenziell alle Orte zu einem Sozialraum werden, sofern sie für mindestens eine Gruppe von Menschen als Treffpunkt dienen.⁶

2 Riege, Schubert (2016). S.1.

3 sozialinfo.ch, Wandel des Sozialraumbegriffs.

4 Riege, Schubert (2016). S.1.

5 Riege, Schubert (2016). S.2.

6 Uni Weimar, Sozialraum.

2.2 SOZIALER RAUM NACH HERMAN HERTZBERGER

Herman Hertzberger beginnt in seinen Büchern *Lessons in Architecture 1 & 2* mit den gleichen Grundgedanken zur Definition des Sozialraums, schliesst jedoch noch weitere Aspekte mit ein. Seine Erläuterungen beginnen damit, dass für ihn Architektur – Häuser, Strassen und Plätze - erst durch die Benutzer*innen einen Sinn bekommen. Ohne den Menschen sind nach Hertzberger sämtliche Orte nur Leere, ein Nichts.⁷ Deshalb soll Architektur nicht als reine Form ohne Inhalt gedacht werden, sondern in erster Linie in Situationen und wie diese auf den Menschen wirken. Der Mensch wird bei Hertzberger zur treibenden Kraft hinter einem Entwurf. Dabei unterscheidet er zwischen allgemeiner Fläche und dem kollektiven Raum, der gemeinschaftlich genutzten Fläche eines Gebäudes.⁸

Ein Architekt soll zwischen dem geforderten Programm, mit öffentlicheren Bereichen und privateren Zonen immer nach dem Raum für Kollektivität Ausschau halten – also den Räumen die von allen Gebäudenutzer*innen zusammen gebraucht werden werden können. Räumlich gesehen ist das für Hertzberger im einfachsten Sinne die geteilte, offen gelassene Fläche zwischen den privateren und introvertierteren Bereichen des Raumprogramms.⁹

Gemeinschaftlicher Raum ist dann nicht automatisch sozialer Raum. Es ist erst der darin stattfindende soziale Kontakt, der einen kollektiven Raum zu einem sozialen Raum macht.¹⁰ In diesen kollektiven Räumen treffen Menschen zufällig oder bewusst – zum Beispiel durch eine Verabredung – aufeinander und treten miteinander in Kontakt. Dabei spielt es keine Rolle ob einzelne Personen oder ganze Gruppen miteinander in Verbindung kommen.¹¹

Er plädiert dafür, Raumformen möglichst so zu organisieren, dass sie vermehrt Möglichkeiten und Situationen zum Zusammentreffen von Menschen und zwischenmenschlichen Kontakt fördern.¹² Die Entstehung von sozialem Raum ist nach ihm eine Grundvoraussetzung für ein funktionierendes Gebäude und auch Teil der sozialen und kulturellen Verantwortung eines Architekten.¹³ Dieser wird normalerweise in einem Raumprogramm wenig bis gar nicht definiert, ist aber für das Gebäude selbst und seine Benutzer*innen von enormer Bedeutung.¹⁴

7 Hertzberger (2010). S.14.

8 Hertzberger (2010). S.28.

9 Hertzberger (2010). S.179.

10 Hertzberger (2010). S.135.

11 Hertzberger (2010). S.150.

12 Hertzberger (2010). S.136.

13 Hertzberger (2010). S.172.

14 Hertzberger (2010). S.178.

3 ZENTRALE SOZIALE RÄUME IN PROJEKTEN HERTZBERGERS

Die räumlichen Qualitäten, die den sozialen Kontakt zwischen zwei Menschen oder einer Gruppe von Personen ermöglichen, sind für Hertzberger schwierig zu erreichen. Bei der Gestaltung von Gebäuden können jedoch seiner Meinung nach die Möglichkeiten, anderen zu begegnen oder eben nicht zu begegnen massgeblich beeinflusst werden.¹⁵ Dabei kommt Hertzberger immer wieder auf ein Thema zurück: Die Organisation des Innenraums mit «einem zentralen Raum in mehr oder weniger gegliederter Form, um den sich die Wohn- und Arbeitsräume gruppieren, die alle von der zentralen Halle aus erreicht werden.»¹⁶ Entscheidend für ihn ist dabei, dass die interne Erschliessung sich auch auf diesen zentralen Raum beschränkt, damit alle Gebäudenutzer*innen immer wieder zu ihm zurückkehren und sich die Wege kreuzen können.¹⁷ So finden sich bei Hertzberger *zentrale vertikale Räume*¹⁸, mehrgeschossige Atrien und Foyers, in denen sich sowohl die Erschliessung als auch Aufenthaltsräume befinden.

¹⁵ Hertzberger (2010). S. 178.

¹⁶ Hertzberger (2010). S. 172.

¹⁷ Hertzberger (2010). S. 172.

¹⁸

3.1 WOHNHÄUSER DIAGOON, DELFT (1969-1970)



Abb. 4. Diagonaler Blick durch den Gallerieraum in einem der Diagoon Häuser.

Grundlage hinter dem Entwurf der Diagoon Wohnhäuser in Delft, welche zwischen 1969 und 1970 erstellt wurden, bildet das Ziel *prinzipiell unfertige Häuser*¹⁹ zu bauen. Die angedachten Grundrisse sind offen gehalten, so dass die zukünftigen Bewohner*innen die Innen- und Aussenräume nach ihren Wünschen mitgestalten können. Die Struktur der acht Wohnhäuser für jeweils eine Familie kann somit als Grundmodell betrachtet werden, in dem sich zahlreiche Organisationsvarianten unterbringen lassen. In der Grundrissdisposition ordnen sich zwei L-förmige Hausbereiche um einen vertikalen Gallerieraum - bei Hertzberger *the living hall* oder *family void* genannt - an, welcher über die ganze Höhe des Gebäudes reicht.²⁰ Angrenzend daran befinden sich zwei Kerne für Erschliessung und Nasszellen-, beziehungsweise für die Küche. Die Grösse des eigentlichen Gallerieraumes variiert über die halbgeschossig versetzten Ebenen von 1x2.6m bis zu 2.25x2.6m innerhalb der 7x13m grossen Wohneinheit. Je nach Familiengrösse und Konstellation finden so 4-8 Familienmitglieder in einem der Diagoonhäuser Platz.

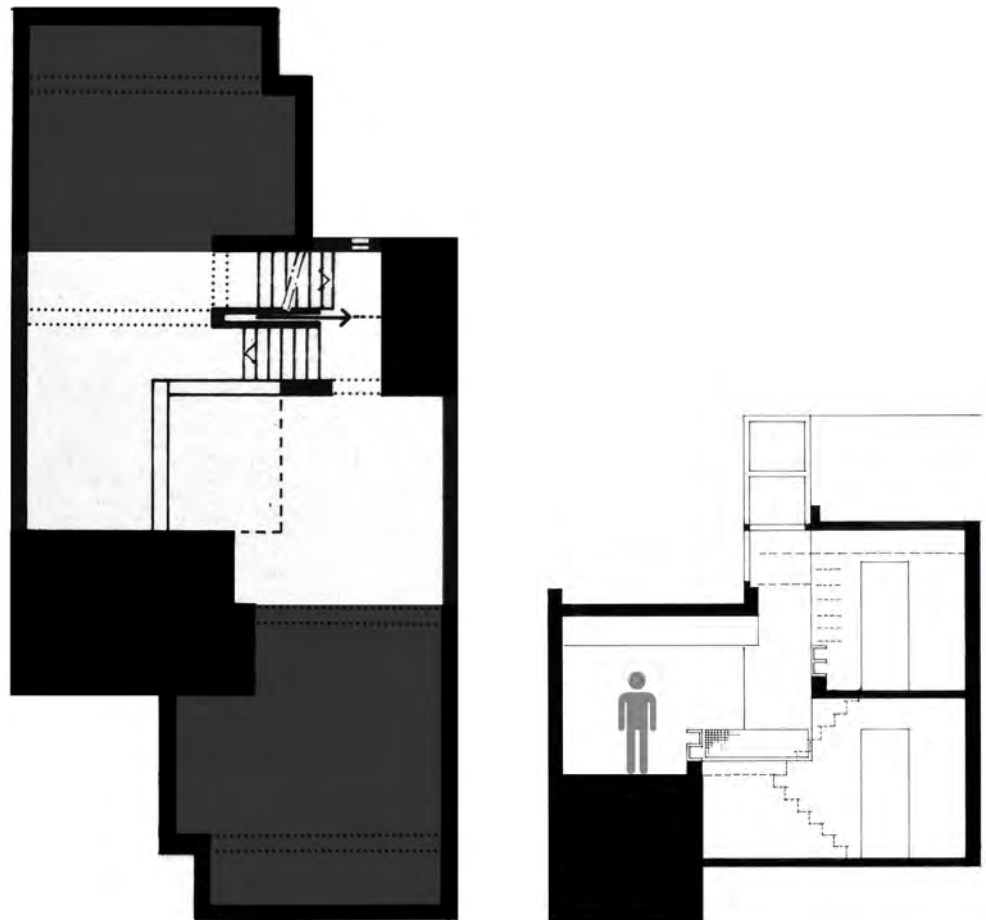


Abb. 5. Der vertikale Raum in der Grundorganisation des 1. Obergeschosses des Diagoon Hauses. Die angrenzenden Räume sind grundsätzlich damit verbunden – es sei denn sie werden durch Wände abgetrennt.

Abb. 6. Der vertikale Raum in der Schnittfigur des Diagoon Hauses im Vergleich zum menschlichen Massstab.

19 Van Bregeijk (1997). S.46.

20 Van Bregeijk (1997). S.46.

3.2 APOLLOSCHULEN, AMSTERDAM (1980-1983)



Abb. 7. Blick durch das Atrium in der Apollogrundschule.

Zwischen 1980 und 1983 baute Herman Hertzberger in Amsterdam zwei Primarschulen. Die diagonal zueinander versetzten Gebäude folgen demselben Grundprinzip und Struktur. Aufgrund der unterschiedlichen Lage auf dem Grundstück und den verschiedenen Pädagogikprinzipien (Montessori und herkömmliches Schulsystem) ergeben sich jedoch teilweise differenzierende Ausformulierungen der Grundrisse und Fassaden. In kompakten Volumina finden sich so jeweils zwei Kindergartenzimmern und 6 Klassenzimmer für die Primarschüler*innen.²¹ Diese sind halbgesschossig versetzt um ein zentrales Atrium angeordnet, in dem sich auch die gesamte Erschliessung des Gebäudes befindet. Der zentrale vertikale Raum nimmt so innerhalb des 20x25m grossen Fussabdrucks der Gebäude eine Fläche von 10x12m ein und bietet Platz für unterschiedlichste Bereiche und Nutzungen rund um den Schulbetrieb. Ausgehend von einer geschätzten Klassengrösse von 18-20 Schüler*innen und einer Lehrperson pro Klasse lässt sich darauf schliessen, dass der zentrale vertikale Raum in den beiden Schulen von jeweils ca. 150 Personen genutzt wird. Diese sind jeweils einer Klasse angehörig, kennen sich also teilweise gut bis sehr gut oder zumindest vom Sehen.

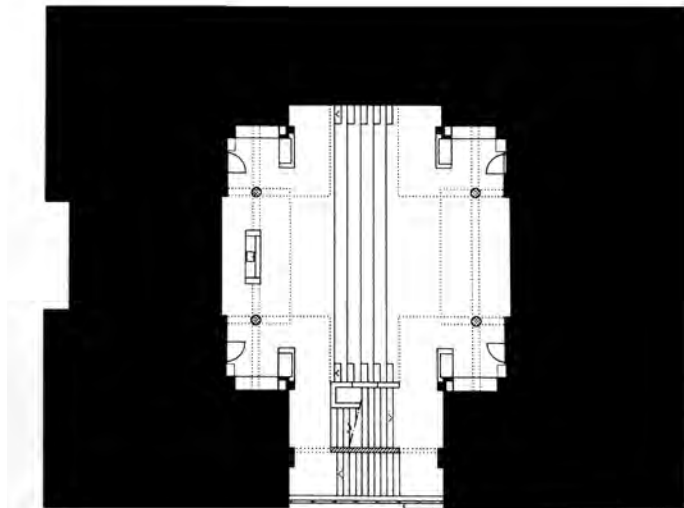


Abb. 8. Der vertikale Raum in der Grundorganisation des 1. Obergeschosses in der Apollo Grundschule.

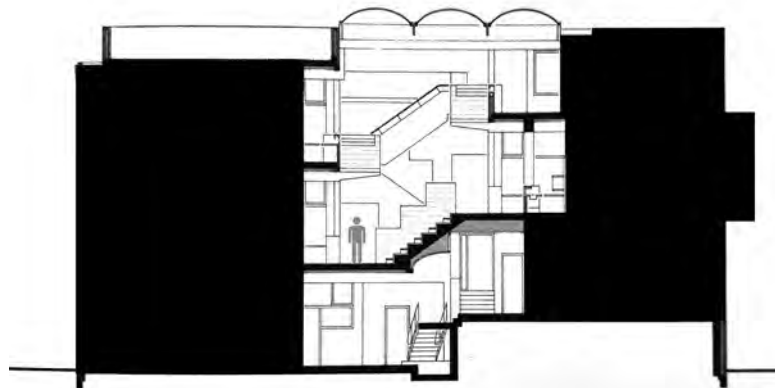


Abb. 9. Der vertikale Raum in der Schnittfigur der Apollo Grundschule im Vergleich zum menschlichen Massstab.

²¹ Van Bregeijk (1997). S.78.

3.3 CENTRAAL BEHEER BÜROGEBÄUDE, APELDOORN (1968-1972)



Abb. 10. Zentrales Atrium mit Innenteich im Bürogebäude Centraal Beheer.

Ein Bürogebäude für rund 1000 Menschen plante Hertzberger für die Versicherungsgesellschaft Centraal Beheer in Apeldoorn von 1968 bis 1972. Im Gegensatz zu den in den 1970er Jahren üblichen Grossraumbüros setzte Hertzberger bei seinem Entwurf auf die rechtwinklige Aneinanderreihung von 60 9x9m grossen Raumeinheiten. Diese gruppieren sich in unterschiedlich grosse Bereiche, die jeweils durch eine Abteilung der Versicherung als Bürolandschaft genutzt werden. Abwechselnd dazu durchbrechen in regelmässigen Abständen gebäudehohe Lufträume die rigide interne Organisation. Die zwei- bis fünfgeschossigen Gebäudebereiche können dadurch als durchgehenden Raum – horizontal und vertikal – mit fast schwebenden Arbeitsnischen wahrgenommen werden. Die Lufträume sorgen auch für die interne Vernetzung des Gebäudes: eine Vielfalt von überhohen Durchgängen erschliesst die einzelnen Bereiche und gewährt ein Maximum an gemeinschaftlichen Bereichen zwischen den privaten Büronischen. Das grosse Atrium im Zentrum des Gebäudes dient als Treffpunkt aller Abteilungen.

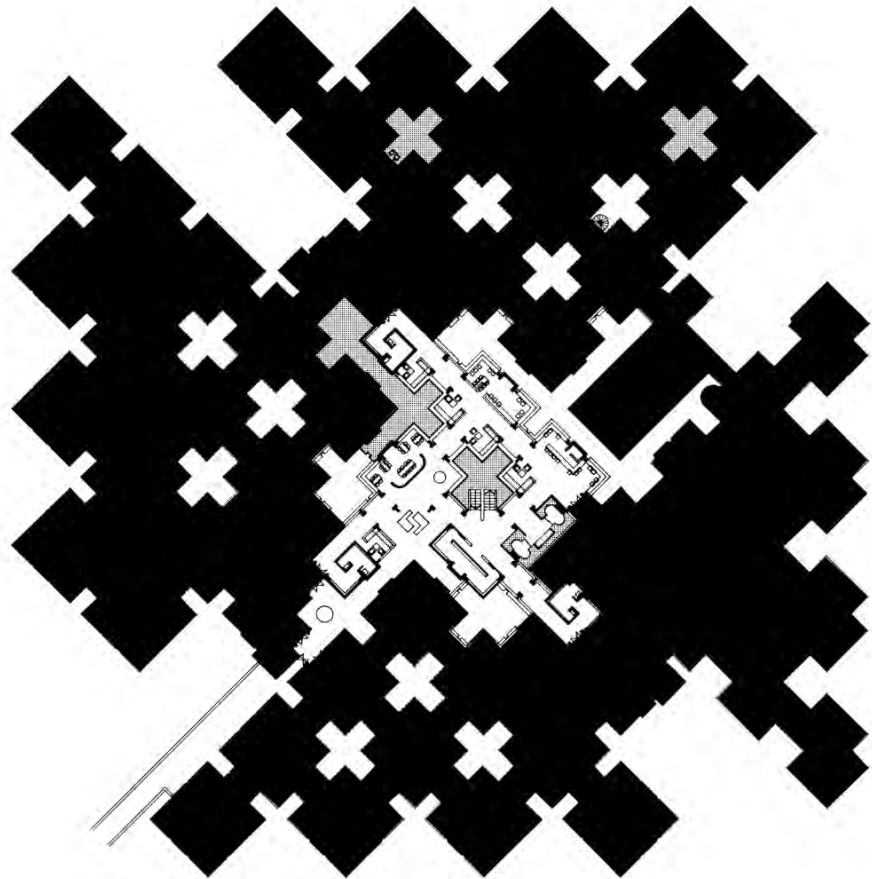


Abb. 11. Der zentrale vertikale Raum und die Büroatrien mit Innenbalkonen in der Grundorganisation des 1. Obergeschosses im Centraal Beheer.

Abb. 12. Die vertikalen Räume in der Schnittfigur des Centraal Beheer im Vergleich zum menschlichen Massstab.



3.4 MUSIKZENTRUM VREDENBURG, UTRECHT (1973-1978)



Abb. 13. Überhohe mit Glas überdachte Arkade im Vredenburg Musikzentrum.

Das zwischen 1973 und 1978 gebaute Musikzentrum Vredenburg in Utrecht bietet neben der Nutzung als Konzertsaal auch Platz für Geschäfte, Büros, Cafés und ein Informationszentrum. Anders als häufig üblich, ist das Gebäudeinnere nicht klar vom Stadtraum getrennt, sondern verbindet sich durch ein grosszügiges Foyer und eine zweigeschossige Arkade stark mit den umliegenden öffentlichen Nutzungen, wie zum Beispiel dem daneben liegenden Einkaufszentrum. Die Foyerfläche mit divers ausgestalteter Erschliessung und Galerieräumen legt sich - im Gegensatz zu den drei vorherigen Projekten - rund um den zentralen grossen Saal. Es findet so eine Umkehrung des Erschliessungsprinzips statt: Die Erschliessungsfläche macht in der Gebäudemitte Platz für die Hauptnutzung. Wie bereits beim Centraal Beheer verbinden die verschiedenen Lufträume und Galerien des Foyers die unterschiedlichen Ebenen miteinander und lassen fließende Raumabfolgen entstehen. Das Musikzentrum bietet Platz für über 2000 Personen: Davon 1'700 im grossen Saal, weitere im kleinen Saal und nochmals andere, die nur das Shoppingzenter besuchen. Dadurch erfüllen die vertikalen Räume des Foyers diverse Funktionen für Personen oder Personengruppen, die sich nicht kennen und durch unterschiedlichste Motive das Gebäude betreten.²²

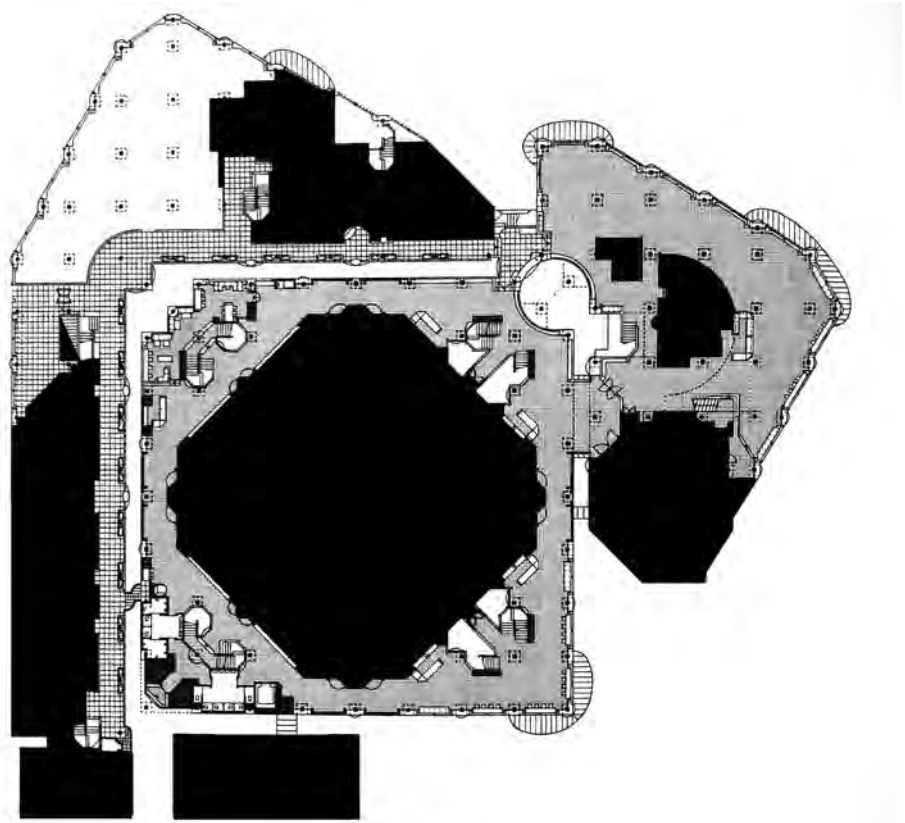


Abb. 14. Das den grossen Saal umschliessende, teilweise zweigeschossige Foyer im 1. Obergeschoss des Vredenburg Musikzentrums.



Abb. 15. Die vertikalen Räume in der Schnittfigur des Vredenburg Musikzentrums im Vergleich zum menschlichen Massstab.

²² Van Bregeijk (1997). S. 61.

4 UNTERSUCHUNG DER VERTIKALEN SOZIALEN RÄUME

4.1 ERSCHLIESSUNG

Betritt man die Diagoon Häuser in Delft gelangt man über einen kleinen Eingangsbereich direkt in den schmalen Treppenkern, der über vier halbgeschossig versetzte Ebenen bis zur Dachterrasse führt. Ab dem ersten Halbgeschoss öffnet sich der Treppenkern zu den umliegenden Wohnräumen und zum Galerieraum. Schmale Wandstücke und geländerhohe Brüstungen lassen die Treppe mit der restlichen Wohnfläche verschmelzen. Die teilweise abgetrennten Zimmer und Nasszellen in den oberen Geschossen werden von kollektiv genutzten Flächen – bei Hertzberger *living hall* oder *family void*²³ genannt – rund um den Luftraum erschlossen. Die so entstehenden Wohnräume entlang der Erschliessung bezeichnet Hertzberger auch als *inner balconies*²⁴. Sie können nach dem Geschmack der Familie genutzt werden und lösen die strenge Trennung zwischen Wohn- und Schlafbereich auf. Das über den Galerieraum spannende Oblicht belichtet die gesamte Erschliessungsfläche von oben mit Tageslicht. Obwohl sich die Familienmitglieder auf den schmalen Treppenläufen nicht kreuzen können, ergeben sich durch die angrenzenden Zonen immer wieder Begegnungsmöglichkeiten.

Abb. 16. Erschliessungsnetz innerhalb des Diagoon Hauses: Eingangsgeschoss mit Garage.

Abb. 17. Erschliessungsnetz innerhalb des Diagoon Hauses: 2. und 3. Halbgeschoss mit Küche und Wohnzimmer.

Abb. 18. Erschliessungsnetz innerhalb des Diagoon Hauses: Schlafgeschoss und Dachterrasse.



Eine ähnliche Erschliessungssituation findet sich auch in den beiden Apollo Grundschulen. Sie werden entweder über einen einfachen Eingang im Erdgeschoss oder über die Aussentreppen, die ins 1. Obergeschoss führen, betreten. Von dort gelangt man in ein an der Fassade liegendes Treppenhaus. Halbversetzte Geschosse führen in das bereits in Kapitel 3 eingeführte grosszügige Atrium – der *communal hall*²⁵, eine Art grosses gemeinsames Klassenzimmer oder Dorfplatz – in der Gebäudemitte. Die verschiedenen Geschosse werden so weniger stark voneinander getrennt und verschmelzen nahezu zu einem durchgängigen, fliessenden Raum. Wie Hertzberger es beschreibt: «Ich verstehe, dass man Dinge aufeinanderstapeln muss, aber meiner Meinung nach muss es ein räumliches Mittel geben, das das Ganze verbindet. Du solltest dich nicht in deinem Raum allein fühlen, sondern du solltest ein Gefühl der Zugehörigkeit

²³ Mail von Robert von der Nahmer, 23.05.22.

²⁴ Mail von Robert van der Nahmer, 23.05.22.

²⁵ Hertzberger (2010). S. 168.

haben – das finde ich wesentlich.»²⁶ Sogenannte *study balconies*²⁷ bilden die Übergangszone zwischen dem Atrium und umliegenden Klassenzimmern. Diese Anordnung und Grosszügigkeit der Erschliessung führt dazu, dass die Schüler*innen nach dem Unterricht automatisch aus den Zimmern in die zentrale Halle strömen und sich Gelegenheiten zu spontanen Kontakten ergeben.²⁸

Im untersten Bereich des Atriums ergeben sich wie in den meisten Geschossen mehrere Möglichkeiten in die oberen Geschosse zu gelangen. Hier ergänzt eine grosszügige Arenatreppe²⁹ mit Sitzstufen die Erschliessung. Sie wird neben der Nutzung als Treppe für Aufführungen, Versammlungen, spontane Treffen oder zum Arbeiten verwendet. Wie ein Magnet zieht sie die Gebäudenutzer*innen an und lässt sie verweilen. Die Treppenläufe in den oberen Geschossen sind jeweils zu den unteren versetzt angeordnet und in perforiertem Metall ausgeführt. So kann das Tageslicht, welches über das atriumgrosse Oblicht in den Innenraum fällt, fast ungehindert auch die unteren Geschosse belichten. Durch die verschiedenen Wegmöglichkeiten ergibt sich ein Netz aus strassen- und platzähnlichen Situationen innerhalb des Gebäudes, die «das Kommen und Gehen der Schüler zu einer Aktivität machen, bei der jeder die Chance hat, einen Freund aus einer anderen Klasse zu treffen.»³⁰

Abb. 19. Erschliessungsnetz innerhalb der Apollo Grundschule: Eingangsgeschoss.

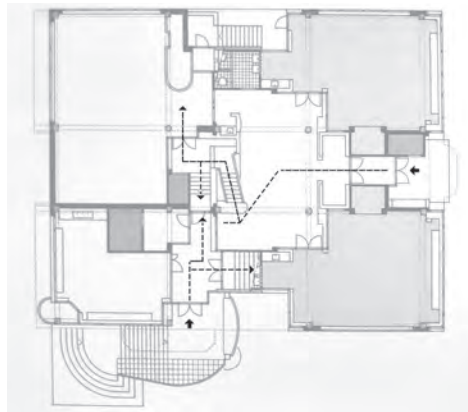


Abb. 20. Erschliessungsnetz innerhalb der Apollo Grundschule: Klassenzimmer um Atrium mit Arenatreppe.

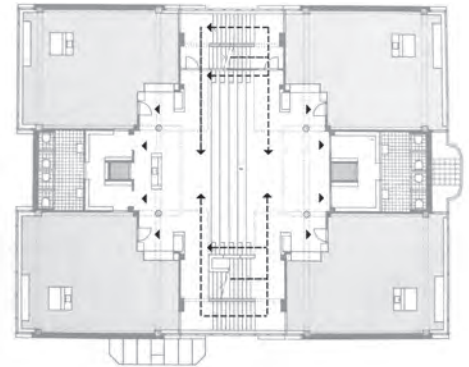
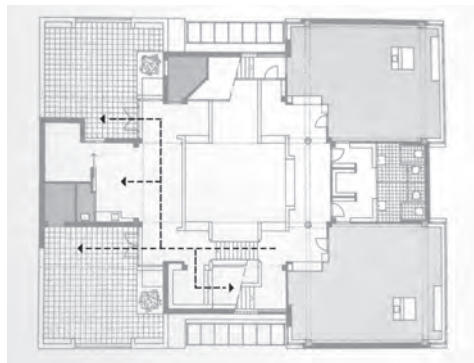


Abb. 21. Erschliessungsnetz innerhalb der Apollo Grundschule: Klassenzimmer und Halbggeschoss mit Dachterrassen.



Die Erschliessungssituation für das Bürogebäude Centraal Beheer und das Musikzentrum Vredenburg gestaltet sich aufgrund der grösseren Nutzerzahl und Gebäudegrösse wesentlich komplexer. Zum einen sind aufgrund der Brandschutzvorschriften eine höhere Anzahl von Treppenaufgängen notwendig, zum anderen tragen mehrere Eingänge auf verschiedenen Seiten zur Funktionalität der Gebäude und Vernetzung mit der Umgebung bei.

26 Hertzberger (2010). S. 168.

27 Hertzberger (2018). Eine städtebauliche Untersuchung. Vortrag in Wien, 23.11.2018

28 Hertzberger (1995). S.209.

29 Hertzberger (1995). S.149.

30 Hertzberger (1995). S.205.

So ergeben sich beim Centraal Beheer zwei Haupteingänge und mehrere Nebeneingänge, welche direkt in die (Flucht)treppenhäuser führen. Je nach dem zu welchem Zweck man das Gebäude betritt, macht ein anderer der Eingänge Sinn. Besucher*innen und Büroangestellte benutzen einen der beiden Haupteingänge im Erdgeschoss, die von den Parkdecks her den zentralen, kollektiven Bereich erschliessen. Vom südlicheren der beiden Eingänge führt ein Korridor in Richtung der Gebäudemitte zur Eingangshalle. In regelmässigen Abständen öffnet sich der niedrige Gang nach oben zu einem Atrium, um welches sich die Büroflächen der oberen Geschosse mit den *inner balconies* gruppieren. Die klare Geschosstrennung wird so, wie auch bereits bei den Apolloschulen, minimiert und die Zusammengehörigkeit der Räume betont. Vom östlichen Eingang gelangt man direkt in die vier geschossige Eingangshalle. Von dort aus entwickelt sich stadttähnlich ein abwechslungsreicher Grundriss mit Korridoren und Plätzen. Die Kaffeebar, das Personalrestaurant und weitere Nutzungen gehen darin fließend ineinander über und werden durch die darüberliegenden Atrien dennoch zониert. Verschiedenste Wegmöglichkeiten und die differenzierten Nutzungen begünstigen spontane Treffen.

Die Haupterschliessung der oberen Geschosse führt über zwei diagonal zueinander versetzte Rolltreppen. Davon ausgehend erschliesst die kollektive Zone in der Gebäudemitte wiederum mit einem komplexen Weg- und Platznetz, welches sich um die verschiedenen Atrien legt, die an der Fassade liegenden Büroflächen. Weitere gemeinschaftliche Nutzungen, wie beispielsweise eine Bibliothek, sind in die Erschliessungsflächen eingebunden. Der Architekt und Mathematiker Christopher Alexander äusserte sich passend zum Vergleich des Gebäudes als Stadt dazu: «A city is not a tree».³¹ Also kein linearer Aufbau der Erschliessung, sondern ein mit Wegen durchzogenes Ganzes, was wiederum ein Ausdruck von Demokratie innerhalb des Gebäudes darstellt. Die Analogie mit einer Stadt wird im 1. Obergeschoss durch Pflanzen und einen Teich, sowie durch die Materialisierung zusätzlich verstärkt. Nischen und Sitzgelegenheiten laden, wie in einer Altstadtgasse, zu geschäftlichen, aber auch spontanen Treffen mit Arbeitskolleg*innen ein.

Abb.22. Blick von oben auf den östlichen Haupteingang des Gebäudes und die Arbeitsbalkone um das Atrium.



Abb.23. Blick durch die kollektiven Bereiche mit Zenitallicht, den Korridoren und unterschiedlichen Sitznischen.



31 Alexander (1965). S. 58.

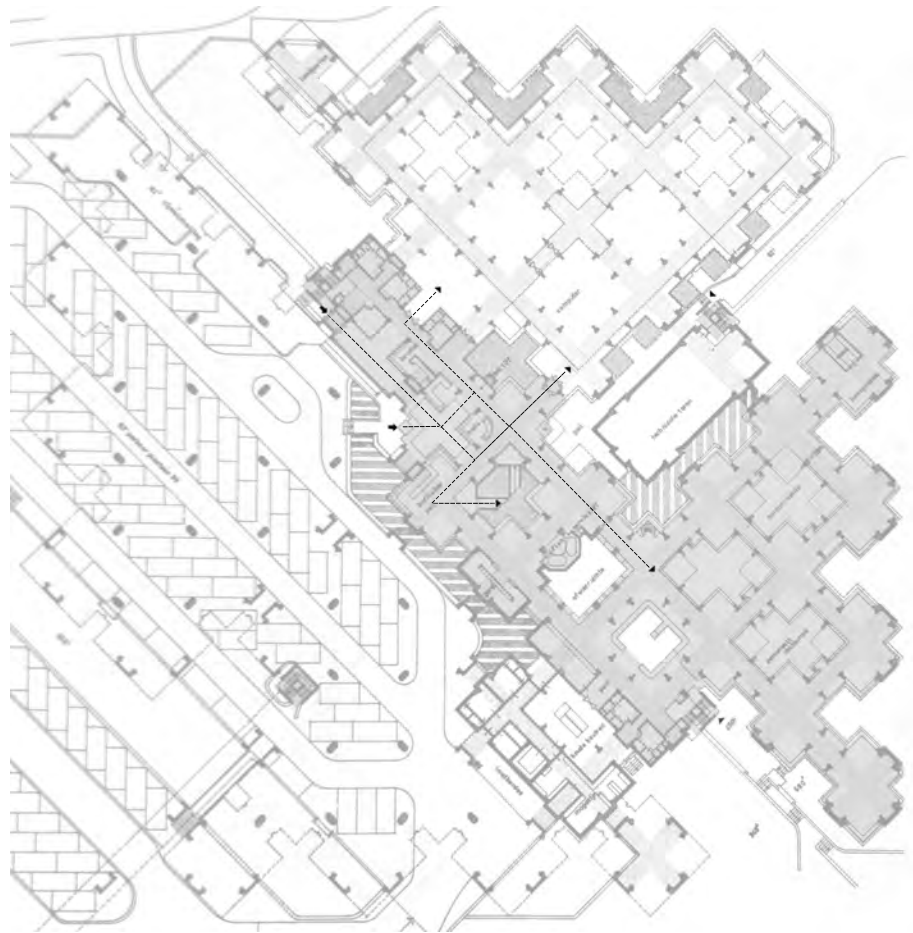


Abb. 24. Erschliessungsnetz im Erdgeschoss des Centraal Beheer Bürogebäude.

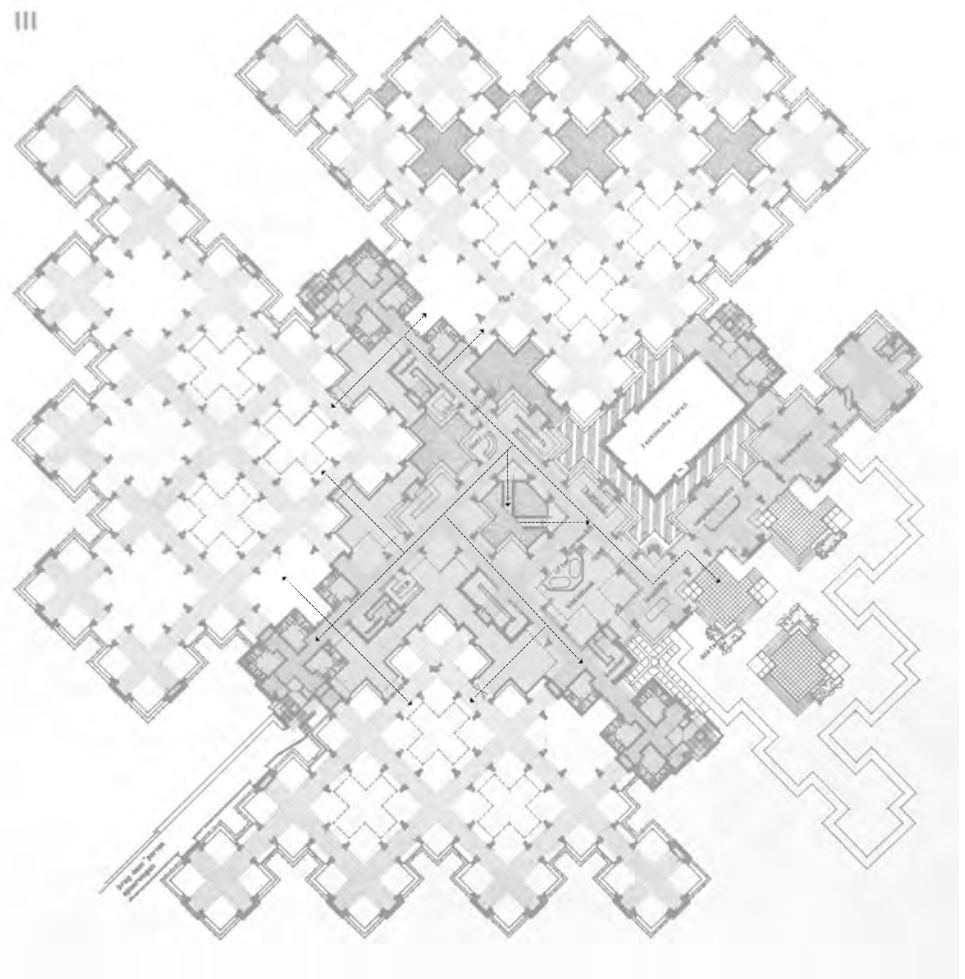


Abb. 25. Erschliessungsnetz im 3. Obergeschoss des Centraal Beheer Bürogebäudes mit Zugang zur Dachterrasse.

Wie beim Centraal Beheer verteilen sich beim Vredenburg Musikzentrum, anstelle eines imposanten Haupteingangs, sechs verschieden grosse Zugänge rund um das Gebäude herum. Sind alle von ihnen geöffnet, verschmilzt das Gebäude scheinbar mit dem Stadtraum. Der Innenraum wird teilweise zum Aussenraum, Konzertbesucher*innen und Passanten vermischen sich. Innerhalb des Musikzentrums erfolgt eine Abstufung zwischen stadähnlicheren Bereichen mit der Einkaufspassage und introvertierteren, ruhigeren Zonen wie dem Foyer bis hin zum mittig angeordneten Hauptsaal. Man betritt das Gebäude somit erst nach und nach. Ähnlichkeiten zum Centraal Beheer ergeben sich durch die Anordnung von verschiedenen Nutzungen innerhalb des Erschliessungsbereiches: In diesem Fall finden sich zum Beispiel neben Ladenflächen auch Getränketheken für die Konzertbesucher, Sitzmöglichkeiten und Informationsschalter im grosszügigen Foyerbereich.

Nach Hertzberger ist die Vorhalle eines Musikzentrums auch eines der besten Beispiele dafür, dass ein kollektiver Raum im Gebäudeinnern wie eine Stadt funktionieren kann. Hier bewegen sich die Leute in ihrem eigenen Rhythmus: Sie besuchen ein Konzert, treffen Freunde oder Bekannte, trinken Kaffee oder wollen einfach sehen und gesehen werden.³² Durch die unterschiedlichen Bewegungsrhythmen entstehen zufällige Muster, die sozialen Austausch, ähnlich wie in einer Stadt, fördern. Es spiele dabei eine Rolle, welche Möglichkeiten das Foyer dazu bietet: Je grösser die Auswahl an verschiedenen Raumsituationen, desto grösser die Wahrscheinlichkeit, dass sozialer Kontakt entsteht und sich die Menschen aufeinander zu bewegen.

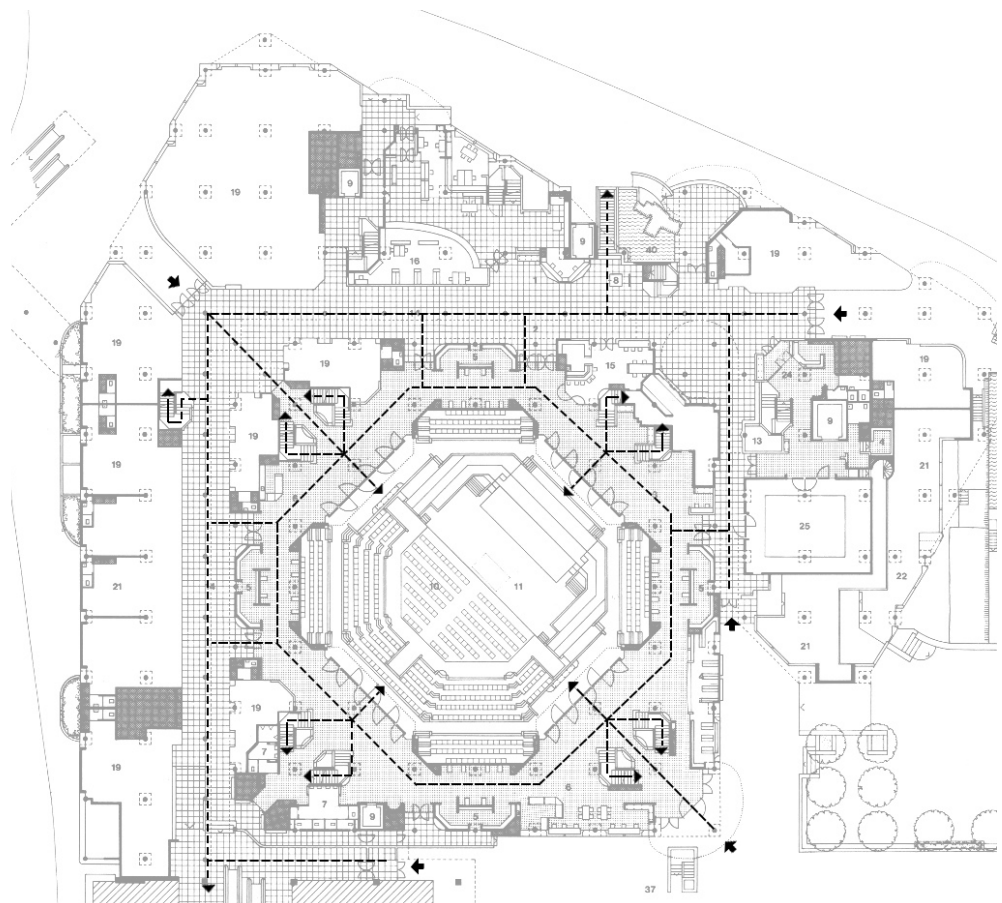


Abb.26. Erschliessungsnetz im Erdgeschoss des Vredenburg Musikzentrums.

³² Hertzberger H. (2010). S. 136.

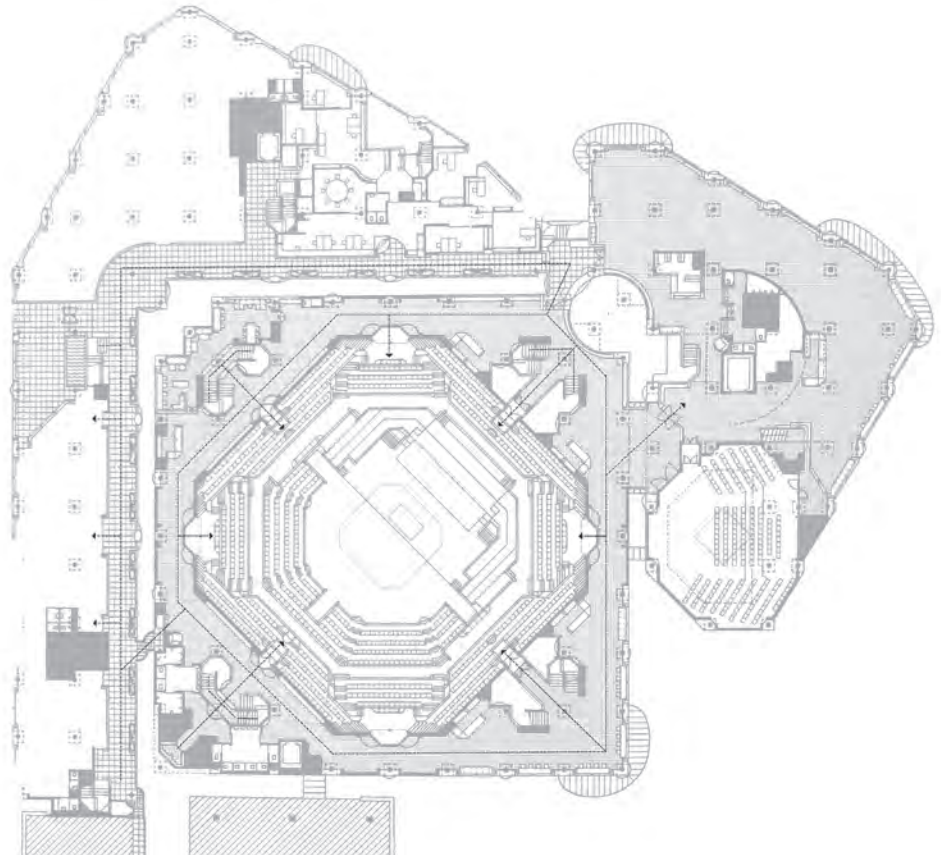


Abb.27. Erschliessungsnetz im 1.Obergeschoss des Vredenburg Musikzentrums.

Die interne Erschliessungsfläche wird heutzutage oftmals so minimal wie möglich gehalten, da sie keine Rendite abwirft. Treppen sind in erster Linie dazu da, Geschosse miteinander zu verbinden.³³ Wie in den vier eingeführten Beispielen gesehen, stellt Herman Hertzberger dazu eine Antithese auf. Er selbst sieht in den zur Erschliessung dienenden Räumen enormes Potential, da sie Platz lassen für das Unerwartete, das Informelle und Nicht-Offizielle.³⁴ Entsprechend viel Fläche nimmt die Erschliessung jeweils ein. Entgegen den oftmals üblichen Korridoren und Treppen, welche räumlich getrennte Geschosse miteinander verknüpfen, finden sich bei Hertzberger grosszügige und fließende Raumabfolgen, sowohl horizontal wie vertikal, die die Verkehrsfläche mit den umliegenden Nutzungen verschmelzen lassen. Er erzeugt dabei bewusst städtische Qualitäten. Mit ihren Strassen, Plätzen und Gebäuden sind Städte ein Abbild der Gesellschaft und lassen Menschen zufällig aufeinandertreffen und in Kontakt treten. Es entsteht eine Art Katalysator, der sozialen Kontakt fördert. Das Innere eines Hauses und speziell die Erschliessung des Gebäudes kann so auch als eine Erweiterung der Stadt angesehen werden. Alle vier Projekte nehmen dieses Thema in unterschiedlichem Massstab auf: Die vertikale Erschliessung der Gebäude besteht immer aus einem Netzwerk an Räumen und Strukturen, die an das Netzwerk aus Strassen und Plätzen erinnern, welche sich wiederum in gemeinsam genutzte und eher abgeschlossenerere, privatere Bereiche unterteilen.³⁵ Die meist unterschiedlich möglichen Wegführungen stärken die eigenständige Bewegung der Menschen in den Räumen und erhöhen durch Kreuzungen die Chancen zu spontanen Zusammentreffen. Die kombinierten Nutzungen intensivieren das Gefühl von Stadt, üben eine anziehende Wirkung aus und laden zum kurz- oder längerfristigen Verweilen ein.

³³ Hertzberger (2010). S. 256.

³⁴ Hertzberger (2010). S. 214.

³⁵ Hertzberger (2010). S. 136.

4.2 BLICKBEZIEHUNGEN

Ein weiterer Punkt, der für Hertzberger mit der Adaption eines städtischen Gefüges innerhalb eines Gebäudes zu tun hat, ist das Forcieren und Multiplizieren von Blickbeziehungen. Die Stadt als Konzept für das soziale Zusammenleben der Menschen hängt nach Hertzberger stark damit zusammen, dass der Mensch selbst andere sieht und gesehen werden will. Der Blickkontakt wird so zum Ausgangspunkt und zur Grundlage von sozialen Kontakten, oder kann als Katalysator für spontane Begegnungen und das Entstehen eines Gemeinschaftsgefühls dienen.³⁶ Architektur muss gemäss Hertzberger daher Raum für genau diese Sichtbezüge lassen: Offenheit innerhalb des Gebäudes, das Verschmelzen der unterschiedlichen Geschosse und unbehinderte Sicht. Innerhalb der Stadt findet er diese Qualitäten besonders an Orten im Herzen der Stadt, von denen aus man noch auf das Umland blicken kann. Genau da kommen Menschen zusammen und bleiben, auch wenn sie keine Intention in diese Richtung hatten.³⁷



Abb.28. Diagonale Sichtbezüge durch das Atrium und auf die *inner balconies*.

Einen besonderen Fokus auf Blickbezüge legt Hertzberger in Schulen. Für Kinder ist sie nicht nur ein Ort zum Lernen, sondern vor allem ein Ort für soziale Kontakte.³⁸ In der Apollogrundschule sind so im zentralen vertikalen Raum Sichtachsen in alle Richtungen allgegenwärtig. Die einzelnen Treppen entlang des grossen Atriums sind so angeordnet, dass eine Art Rundlauf entsteht. Statt übereinander liegenden Podesten und Treppenläufen sind diese versetzt angeordnet und bieten so immer den Blick von der einen auf die andere Treppe. Anstelle der üblicherweise schrägen, dem Handlauf folgenden, Brüstungen finden sich hier abgetreppte, gemauerte Geländer. Die Brüstung selbst lädt zum Abstützen der Ellbogen oder zum sich darauf Setzen ein, die Kinder verweilen und beobachten das Geschehen auf der Arenatreppe. Um es mit den Worten von Hertzberger zu sagen: «Da, wo sich etwas abspielt, möchte man innehalten und zuschauen, und das ist schon Grund genug, zu versuchen, die Architektur zur Vermehrung der Sitzgelegenheiten beitragen zu lassen.»³⁹ Auch die Arbeitsplätze auf den *inner balconies* sind so ausgerichtet, dass man während dem Lernen das Geschehen im ganzen Raum überblicken kann.

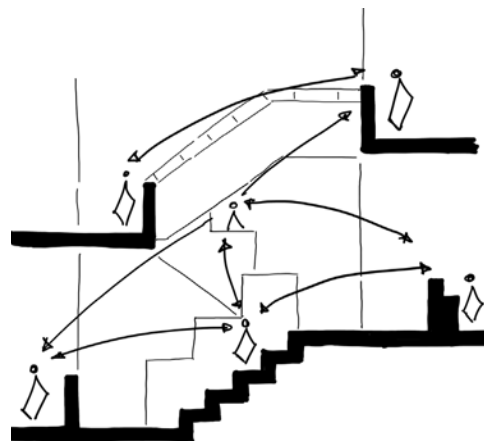


Abb.29. Mögliche Sichtbezüge innerhalb des zentralen vertikalen Raumes.

Abb.30. Versetzte Treppenläufe seitlich der Arenatreppe und abgetreppte Brüstung.



³⁶ Hertzberger (2010). S. 120.

³⁷ Hertzberger (2010). S. 121.

³⁸ Hertzberger (2018).

³⁹ Hertzberger (1995). S. 182.

Auch im Bürogebäude Centraal Beheer führen die beiden grossen Rolltreppen im Atrium des kollektiven Bereichs jeweils diagonal zueinander in das nächste Geschoss. So sind während dem nach oben fahren einerseits Blickbeziehungen zu anderen Personen auf der unteren und oberen Rolltreppe möglich, andererseits aber auch zu Personen, die sich rund um das Atrium auf den *inner balconies* aufhalten. Die Sichtlinien erhöhen so zumindest visuell die Chancen anderen zu begegnen. Die Dreidimensionalität des zentralen Atriums ermöglicht so auch Blicke, die in unserem alltäglichen Leben sonst oftmals nicht möglich sind: das schräg nach unten oder nach oben Schauen.

Abb. 31. Verhinderter Blickkontakt durch Anordnung der Rolltreppen übereinander.

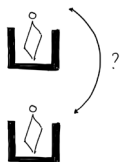


Abb. 32. Blickachsen bei diagonal versetzten Rolltreppenläufen.

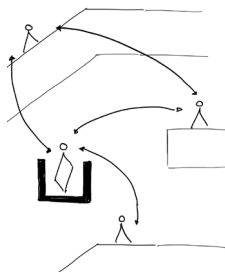


Abb. 33. Blick durch das zentrale Atrium im Centraal Beheer.



Die Anordnung der Arbeitsplätze entlang der Atrien ermöglicht die Sicht vom eigenen Arbeitsplatz in die Geschosse weiter unten und weiter oben. Räumlich wird so dem Grossraumbürokonzept eine dritte Dimension hinzugefügt. Demnach sitzen die Mitarbeiter*innen zwar in ihrer eigenen Abteilung, in einem begrenzten Bereich mit Menschen, die sie kennen, sind aber nicht von den restlichen Abteilungen getrennt. Personen, die sich eigentlich im Arbeitsalltag nicht kennen oder treffen würden, treten über Sichtachsen miteinander in Kontakt und es kann ein Gefühl von Zusammengehörigkeit über alle Geschosse hinweg entstehen.⁴⁰

Abb. 34. Auflösen der Geschossigkeit durch vertikale Blickkontakte.

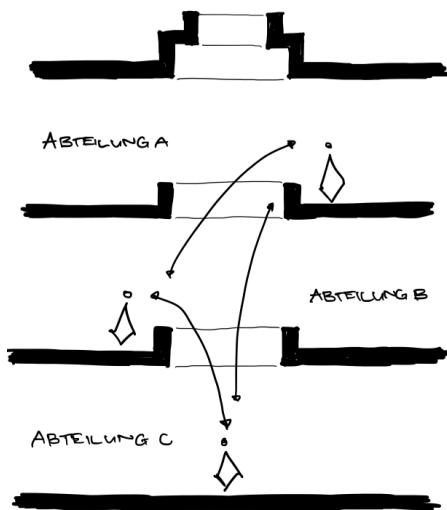


Abb. 35. Bürobalkone rund um die Atrien mit Blick auf die anderen Abteilungen.



40 Hertzberger (2010). S. 90.

In den Diagoon Häusern sind zwar die Treppenläufe nicht versetzt zueinander angeordnet, aber die Auflösung des Treppenkerns und die direkt an den Galerie- raum angrenzenden Wohnräume erzeugen ebenfalls starke diagonale Bezüge. Eine dadurch entstehende Situation, an die sich der Sohn der Besitzer eines der Diagoon Häuser gut erinnern konnte, war das abendliche Zusammensein rund um den *family void*: Die Mutter den Tisch deckend im 2. Halbgeschoss, der Vater auf dem Halbgeschoss darüber in der Bibliothek am Arbeiten und der Sohn selbst im obersten am Schreibtisch direkt an der Galerie am Hausaufgaben erledigen. So gingen sie zwar verschiedenen Tätigkeiten nach, konnten sich aber durch die diagonalen Blickbezüge zwischen den Halbgeschossen die ganze Zeit sehen und es entstand trotzdem das Gefühl zusammen Zeit zu verbringen.⁴¹

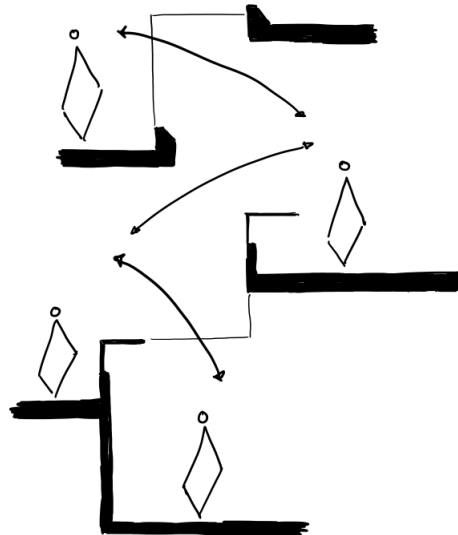


Abb. 36. Halbgeschossig versetzte Ebenen werden zu einem fließenden Raum.

Abb. 37. Blick vom Küchengeschoss bis zum Oblicht und Ausstieg der Dachterrasse.



Die Beispiele zeigen auf, dass für Hertzberger bei der inneren Organisation eines Gebäudes das Beeinflussen der Blickbezüge ein zentrales Entwurfsthema ist. Mit Hilfe von den vertikalen Leerräumen, strategisch platzierten Treppen und Podesten, sowie den wiederkehrenden *inner balconies* schafft er diverse Möglichkeiten andere zu sehen, gesehen zu werden, hinaus- oder hindurchzusehen. Blickkontakte mit anderen Gebäudenutzer*innen entstehen dabei fast automatisch und können zu vermehrtem sozialen Kontakt beitragen. Er selbst geht in seinen Ausführungen zu gewünschten Sichtbezügen in seinen Gebäuden sogar so weit, dass er so viele wie möglich zu erzielen versucht. Der Mensch sei dadurch weniger allein.⁴² Das Sehen und Gesehen werden bringe Menschen zusammen und halte sie auch zusammen.⁴³

41 Mail von Robert von der Nahmer, 23.05.22.

42 Hertzberger (2010). S. 20.

43 Hertzberger (2010). S. 156.

4.3 ZWISCHEN AUSSICHT UND RÜCKZUG

Während Hertzberger einerseits das Schaffen von Blickbezügen als zentral für die Entstehung von sozialen Kontakten bezeichnet, müssen jedoch auch Situationen betrachtet werden, in denen man sich den Blicken entziehen will. Er selbst geht davon aus, dass jeder Gebäudenutzer*in zu jeder Zeit die Möglichkeit haben muss, sich zu zeigen oder eben zurückzuziehen.⁴⁴

Für Hertzberger gibt es deshalb neben der Unterscheidung zwischen kollektiven und privaten Räumen auch noch die Unterscheidung zwischen *Space* und *Place*. Diese Unterscheidung kommt für Hertzberger durch den Menschen und seine Nutzung und Empfindung zustande.⁴⁵ *Space* ist dabei Raum, der die Möglichkeit bietet, ihn sich zu eigen zu machen. Im Gebäudeinnern bringt er diese Eigenschaften mit Tiefe, Perspektive und Fläche in Verbindung. *Place* hingegen ist eine begrenzte Fläche innerhalb eines Hauses, die so ausformuliert ist, dass sie uns Schutz bietet. Man fühlt sich darin wohl, aufgehoben und sicher.⁴⁶ Er fasst den Unterschied der beiden Konzepte wie folgt zusammen: «A space is longing, an expectation of possibilities, outside, on a journey, dynamic and open, away. Place is pause, inside, redemption, home, at rest.»⁴⁷ Und er hält fest, dass *Space* und *Place* nicht ohne einander funktionieren können. Der Mensch braucht immer die beiden Grundprinzipien der Architektur: Aussicht nach Vorne und rückwertigen Schutz.⁴⁸

Damit ist Hertzberger sehr nahe an der Prospect & Refuge-Theorie. Diese wurde 1975 vom britischen Dichter und Geographen Jay Appleton entwickelt, in dem er anhand von Landschaftsgemälden die menschlichen Präferenzen für bestimmte Umgebungen untersuchte. Gemäss seinen Erkenntnissen hat der Mensch sowohl ein Bedürfnis nach Sicherheit und Schutz, andererseits aber auch die Neugier zum Entdecken. So beschreibt er unter dem Faktor *Prospect* der menschliche Wunsch nach einem guten Überblick, nach Aussicht und unter dem Faktor *Refuge* der Wunsch nach einem Rückzugsort oder einem Versteck. Diese Präferenzen ergeben sich seiner Meinung nach aus der Entwicklung der Menschheit: Die ideale Umwelt für unsere Vorfahren war eine, bei der sie sich vor Angreifern verstecken konnten und gleichzeitig Ausschau halten konnten.⁴⁹



Abb. 38. Prospect-Refuge in der Landschaftsmalerei: starker Rückzug, Balance zwischen Rückzug und Ausblick, starker Ausblick.

Auch beim Bürogebäude Centraal Beheer ergibt sich dieses Spannungsfeld zwischen Ausblick und Abgeschlossenheit. Hier passiert in gewisser Weise das, was Hertzberger den *massification effect* nennt: Alle Mitarbeiter rund um ein Atrium können einander zu jeder Zeit sehen und beobachten. Wie in Kapitel 4.2

44 Hertzberger (2010). S. 90.

45 Hertzberger (2010). S. 24.

46 Hertzberger (2010). S. 24.

47 Hertzberger (2010). S.25.

48 Hertzberger (2010). S. 25.

49 Jones (2021). S. 57.

ausgeführt, erzeugt diese Situation zwar ein Gemeinschaftsgefühl, kann aber für gewisse Personen auch schwierig sein, da man so ständig die Attitude halten muss.⁵⁰ Um dem entgegenzuwirken und den Mitarbeiter*innen ein Gefühl von Schutz und Rückzug zu ermöglichen, spielt Hertzberger einerseits mit geschlossenen Brüstungen, die so wenigstens einen Teil des Körpers verdecken, und andererseits mit der Möblierung. Die 3.5x3.5m grossen Büronischen sind flexibel gestaltbar: Schreibtisch, Lampe und Pflanzen können selbst gewählt werden und bringen so Vertrautheit und ein bisschen Zuhause an den Arbeitsplatz. Zudem bekommen die Einheiten mit 12m² einen Massstab, denn man gut fassen kann.

Abb. 39. Nischenbildung durch geschlossene Brüstungen. Geschützter Aufenthaltsbereich für kleinere Gruppen.

Abb. 40. Individuelle Arbeitsplätze auf den *inner balconies*. Gemeinschaftliche Fläche im unteren Bereich.

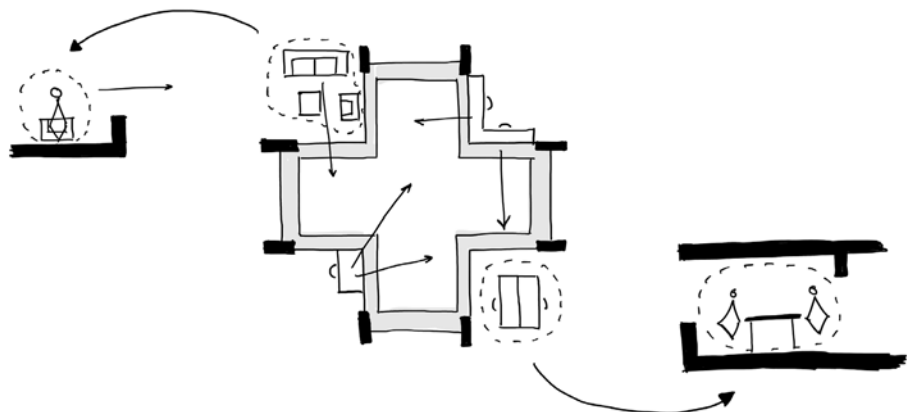


Abb. 41. Geschützte Zonen und Ausblicke rund um die Atrien.

Für Hertzberger kann *Space* immer auch zu *Place* werden. Die Aufgabe der Architekt*innen sieht er dabei darin, *Space* so zu planen, dass er die Qualitäten aufweist als *Place* genutzt zu werden. Das bedeutet Räume so zu unterteilen, dass Plätze entstehen, die einen angenehmen Massstab und einen gewissen Grad an Abgeschlossenheit besitzen.⁵¹

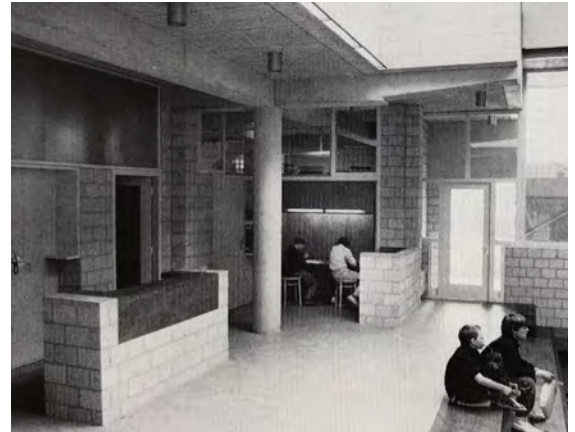
50 Hertzberger (2010). S. 94.

51 Hertzberger (1995). S. 190.

Das grosszügige Atrium in den Apollo Schulen ist ein Raum voller Möglichkeiten. Die Arbeitsplätze entlang der Brüstungen bieten Ausblick über den gesamten Raum und die Arenatreppe. Gleichzeitig entstehen aber durch die Einbauten entlang des vertikalen Raumes auch kleinere Nischen und dunklere Ecken, in denen sich die Schüler*innen zurückziehen können. So zum Beispiel am unteren Ende der Arena-Treppe, an einem Arbeitsplatz hinter einem niedrigen Bücherregal. Hier sind die Schüler*innen vor allem auch vor Blicken von oben geschützt. Ein weiterer geschützter Bereich findet sich in der Montessori Schule. Im untersten Geschoss lädt ein vertiefter Bereich unter der Treppe zum Lesen ein. So wird aus verlorener Fläche ein *Place* mit Aufenthaltsqualität.

Abb. 42. Aufenthaltsbereich unter der Treppe. Geschütztes Lesen in kleiner Nische bei gleichzeitigem Blick durch den ganzen Raum.

Abb. 43. Arbeitsplatz im grossen Atrium hinter Brüstung mit künstlicher Belichtung.



Im Musikzentrum in Vredenburg spielt Hertzberger mit unterschiedlichen Abstufungen von Rückzugsmöglichkeiten. Das grosse Foyer erhält so verschiedenste Sitzmöglichkeiten: Wo immer möglich, sind statt Geländer gemauerte, breitere Brüstungen.⁵² Entlang der zweistöckigen Arkade weitet sich das Geländer in regelmässigen Abständen zu einer Sitzbank aus. Diese ermöglicht den Blick ins untere Geschoss während dem man selbst im ruhigeren oberen Stock sitzt. Entlang der Wände zum grossen Saal finden sich dann dreiseitig abgeschlossene, abgedunkelte und überdeckte Nischen. Diese sind mit weichen Stoffen und Kissen ausgekleidet und bieten so eine private Atmosphäre innerhalb des grossen Raumes.

Abb. 44. Sitznische mit Tisch am Rande des Foyers. Dreiseitige Umschliessung.

Abb. 45. Blicke von oben durch den Galerieraum. Rückzug im unteren Geschoss in den gedeckten Bereich.



⁵² Hertzberger (1995). S. 177.

Abb. 46. Schemaschnitt durch den Arkadenraum. Geschütztere Bereiche mit unterschiedlicher Privatsphäre.

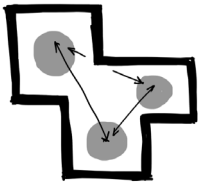
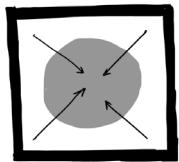
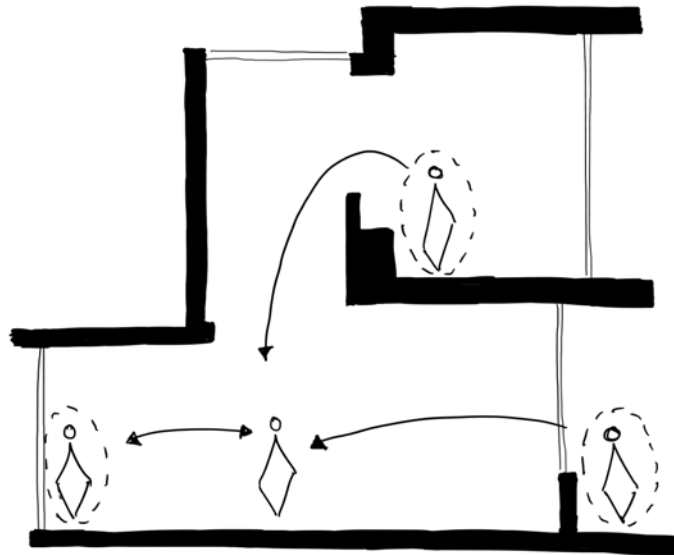


Abb. 47. Unterteilung einer grossen Fläche in verschiedene Bereiche für verschieden grosse Gruppen und Nutzungen.

In den untersuchten Projekten zeigt sich, dass die Gliederung eines Raumes ein entscheidender Faktor für die Entstehung von sozialen Kontakten ist. Sie ermöglicht, dass sich sowohl Einzelpersonen, als auch grössere Gruppen wohlfühlen und eine Zwangslosigkeit entsteht. Alle Gebäudenutzer*innen müssen das sichere Gefühl haben, dass man den Kontakt abbrechen kann und einen Rückzug findet, sobald man das Bedürfnis dazu hat.⁵³ Dabei spielt es auch eine Rolle, wer und wie viele Personen – Bekannte oder Fremde - einen Raum benützen: Je mehr ein Raum gegliedert ist, desto mehr unterschiedliche Gruppen und Aktivitäten finden darin Platz und desto mehr verschiedene Bedürfnisse von Schutz und Aussicht können abgedeckt werden.⁵⁴ Gerade bei grösseren Gebäude wie dem Musikzentrum müssen verschiedene *Places* verfügbar sein, so dass sich die grosse Menschenmasse in angenehme Gruppen aufteilen kann. Entsprechend der Raumgrösse bekommt auch das Gleichgewicht zwischen Nähe und Abstand eine tragende Rolle. Die Personen dürfen nicht zu weit voneinander entfernt sein um Kontakt zu verhindern, aber auch nicht so nahe, dass man sich bedrängt fühlen könnte.⁵⁵

53 Hertzberger (1995). S. 174.

54 Hertzberger (1995). S. 190.

55 Hertzberger (1995). S. 186.

5 PERSÖNLICHES FAZIT

Über rund 10 Wochen habe ich mich im Rahmen der Vertiefungsarbeit mit den Texten von Herman Hertzberger und den vorgestellten vier Projekten befasst. Auch nach dieser Zeit ist die Faszination für die darin enthaltenen Themen und speziell für die Ausgestaltung der Erschliessungsflächen geblieben – wohl zum Teil auch dadurch, dass mir auch nach der Analyse noch nicht alle thematischen und räumlichen Ebenen der Gebäude auf Grund ihrer hohen Komplexität und Vielfältigkeit klar sind.

Während der Studienreise nach Holland hatten wir die Chance die Diagoon Häuser, die Apollo Schulen und auch das Centraal Beheer zu besichtigen. Ich bin der Meinung, dass erst durch diese Besuche eine tiefgründigere Analyse der vertikalen Erschliessungsräume überhaupt möglich war. Zum einen, da die Atrien und Foyers wie bereits angesprochen eine Komplexität aufweisen, die teilweise auf Plänen gar nicht erfasst werden kann, und zum anderen, weil die Empfindung und die Benutzung der Räume durch den Menschen bei Hertzberger als leitendes Entwurfselement fungiert. Wie er es ausdrückte: Ohne den Menschen ist Architektur nur eine Hülle, eine Leere.⁵⁶



Abb. 48. Impression aus einer der beiden Apollo Grundschulen.

In den Diagoon Häusern beeindruckte mich vor allem die räumliche Anordnung rund um die zentrale Galerie. Diese schafft es, sämtliche umliegenden Flächen auf allen Geschossen miteinander in Verbindung zu setzen und zu einem fließenden Raum zusammenzufassen. So sind die Gebäudenutzer*innen immer in Kontakt, obwohl sie sich auf anderen Geschossen befinden. Ich kann mir gut vorstellen, wie ein Familiengefühl rund um das *family void* entsteht.

Ein ähnliches Gefühl entstand auch innerhalb der Apolloschulen. Die Atriumtreppe wirkte anziehend und lud zum Verweilen ein, während man das ganze Atrium im Blick hatte. Die Komplexität der Grundrisse löste unsere relativ grosse Gruppe allmählich in kleinere auf, wir entdeckten die Ecken und Nischen des Raumes. Die Nutzungsüberlagerung zwischen Erschliessung, schulischen Aktivitäten und sozialen Interaktionen erhöhten die Komplexität zusätzlich. Auch sah man schön, wie man sich den Raum zu eigen machen kann: die Sitzstufen, die abgetreppten Brüstungen und *study balconies* füllten sich schnell mit Grüppchen oder Einzelpersonen. Obwohl im vertikalen zentralen Raum fast überall Blickbezüge möglich sind, fühlte ich mich zu keinem Zeitpunkt unwohl. Es gab durch die Nischenbildung immer wieder Rückzugsmöglichkeiten.



Abb. 49. Impression aus dem Centraal Beheer Bürogebäude.

Das Centraal Beheer ist mir auch nach dem Besuch ein kleines Rätsel geblieben. Da wir nur den Haupteingangsraum besichtigen durften, blieb es bei dem Wunsch auch die oberen Stockwerke zu Entdecken. Die hohen Atrien mit den inner balconies und die diagonalen Rolltreppen hätten auf jeden Fall dazu eingeladen. Auch der Fakt, dass das Gebäude nicht mehr genutzt wird verstärkte diesen Eindruck. Man konnte sich jedoch auch hier einen belebten vertikalen, strassenähnlichen Raum vorstellen, der wie ein riesiges Wohnzimmer oder ein Dorfplatz zum sozialen und räumlichen Zentrum des Gebäudes wird und durch geschickte Wegführung, Blickbeziehungen und Nutzungsüberlagerung immer wieder neue Kontakte entstehen liess.

⁵⁶ Vorlesung von Herman Hertzberger während der Studienreise nach Amsterdam im Mai 22

6 QUELLENANGABEN SOURCES

Literatur / Literature:

Alexander C. (1965). A City is not a Tree. In: The Architectural Forum, Vol. 162. S. 58-62.

Hertzberger H. (2018). Lernen. Eine städtebauliche Untersuchung. Vortrag in Wien, 23.11.2018.

Hertzberger H. (2013). Social Space and Structuralism. In: OASE (90). S. 19-22

Hertzberger H. (2010). Space and the Architect – Lessons in Architecture 2. Rotterdam: 010 Publishers.

Hertzberger H. (1995). Vom Bauen – Vorlesungen über Architektur. München: Aries Verlag.

Jones L. (2021). Die Wurzeln des Glücks – Wie die Natur unsere Psyche schützt. München: Karl Blessing Verlag.

Kodré H. (1983). Das monumentale Treppenhaus des 19. Jahrhunderts – Untersuchungen zur Entwicklung der Kommunikationssysteme öffentlicher Gebäude. Wien.

Sozialinfo: Wandel des Sozialbegriffs. Aus: <https://www.sozialinfo.ch/fachwissen/soziale-arbeit-2003-2018/wandel-des-sozialraumbegriffs> (25.05.22)

Riege M., Schubert H. (2016). Sozialraumanalyse: Grundlagen – Methoden – Praxis. Köln: Verlag Sozial Raum Management.

Uni Weimar: Sozialraum. Aus: <https://www.uni-weimar.de/de/architektur-und-urbanistik/professuren/stadtforschung/projekte/abgeschlossene-projekte/sozialraumanalyse/sozialraum/> (08.05.22)

Van Bregeijk H. (1997). Herman Hertzberger. Berlin: Birkhäuser.

Abb.26: Erschliessungsnetz im Erdgeschoss des Vredenburg Musikzentrums. Aus: Eigene Darstellung auf Grundlage von Lüchinger A. (1987). Herman Hertzberger - Bauten und Projekte 1959-1986. Den Haag: Arch-Edition.

Abb.27: Erschliessungsnetz im 1. Obergeschoss des Vredenburg Musikzentrums. Aus: Eigene Darstellung auf Grundlage von Lüchinger A. (1987). Herman Hertzberger - Bauten und Projekte 1959-1986. Den Haag: Arch-Edition.

Abb.28: Diagonale Sichtbezüge durch das Atrium und auf die inner balconies. Aus: Eigene Darstellung auf Grundlage von Lüchinger A. (1987). Herman Hertzberger - Bauten und Projekte 1959-1986. Den Haag: Arch-Edition.

Abb.29: Mögliche Sichtbezüge innerhalb des zentralen vertikalen Raumes. Aus: Eigene Darstellung.

Abb.30: Versetzte Treppenläufe seitlich der Arenatreppe und abgetreppte Brüstung. Aus: Eigene Darstellung auf Grundlage von Lüchinger A. (1987). Herman Hertzberger - Bauten und Projekte 1959-1986. Den Haag: Arch-Edition.

Abb.31: Verhinderter Blickkontakt durch Anordnung der Rolltreppen über einander. Aus: Eigene Darstellung.

Abb.32: Blickachsen bei diagonal versetzten Rolltreppenläufen. Aus: Eigene Darstellung.

Abb.33: Blick durch das zentrale Atrium im Centraal Beheer. Aus: <https://indebuurt.nl/apeldoorn/nieuws/er-komt-eeen-documentaire-over-het-kubusgebouw-van-centraal-beheer-68068/> (05.06.22)

Abb.34: Auflösen der Geschossigkeit durch vertikale Blickkontakte. Aus: Eigene Darstellung.

Abb.35: Bürobalkone rund um die Atrien mit Blick auf die anderen Abteilungen. Aus: Lüchinger A. (1987). Herman Hertzberger - Bauten und Projekte 1959-1986. Den Haag: Arch-Edition.

Abb.36: Halbgeschossig versetzte Ebenen werden zu einem fließenden Raum. Aus: Eigene Darstellung.

Abb.37: Blick vom Küchengeschoss bis zum Oblicht und Ausstieg der Dachterrasse. Aus: Mail von Robert von der Nahmer, 23.05.22.

Abb.38: Prospect-Refuge in der Landschaftsmalerei: starker Rückzug, Balance zwischen Rückzug und Ausblick, starker Ausblick. Aus: <http://anzasca.net/wp-content/uploads/2014/02/p5.pdf> (11.06.22)

Abb.39: Nischenbildung durch geschlossene Brüstungen. Geschützter Aufenthaltsbereich für kleinere Gruppen. Aus: <https://www.ahh.nl/index.php/en/projects2/12-utiliteitsbouw/85-centraal-beheer-offices-apeldoorn> (11.06.22)

Abb.40: Individuelle Arbeitsplätze auf den inner balconies. Gemeinschaftliche Fläche im unteren Bereich. Aus: <https://loveyousomat.tumblr.com/post/16571667426> (11.06.22)

Abb.41: Geschützte Zonen und Ausblicke rund um die Atrien. Aus: Eigene Darstellung.

Abb.42: Aufenthaltsbereich unter der Treppe. Geschütztes Lesen in kleiner Nische bei gleichzeitigem Blick durch den ganzen Raum. Aus: Lüchinger A. (1987). Herman Hertzberger - Bauten und Projekte 1959-1986. Den Haag: Arch-Edition.

Abb.43: Arbeitsplatz im grossen Atrium hinter Brüstung mit künstlicher Belichtung. Aus: Lüchinger A. (1987). Herman Hertzberger - Bauten und Projekte 1959-1986. Den Haag: Arch-Edition.

Abb.44: Sitznische mit Tisch am Rande des Foyers. Dreiseitige Umschliessung. Aus: Lüchinger A. (1987). Herman Hertzberger - Bauten und Projekte 1959-1986. Den Haag: Arch-Edition.

Abb.45: Blicke von oben durch den Galerieraum. Rückzug im unteren Geschoss in den gedeckten Bereich. Aus: Lüchinger A. (1987). Herman Hertzberger - Bauten und Projekte 1959-1986. Den Haag: Arch-Edition.

Abb.46: Schemaschnitt durch den Arkadenraum. Geschützte Bereiche mit unterschiedlicher Privatsphäre. Aus: Eigene Darstellung.

Abb.47: Unterteilung einer grossen Fläche in verschiedene Bereiche für verschieden grosse Gruppen und Nutzungen. Aus: Eigene Darstellung.

REDLICHKEITSERKLÄRUNG DECLARATION OF ORIGINALITY

Hiermit versichere ich, dass die vorliegende Arbeit
mit dem Titel:

Hertzbergers Vertikaler Strassenraum
Eine Untersuchung der vertikalen Erschliessung
als zentraler sozialer Raum

selbstständig durch mich verfasst worden ist, dass
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angegebenen benutzt worden sind und dass die
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nach entnommen wurden, unter Angabe der
Quelle als Entlehnung kenntlich gemacht worden
sind.

Baer Rebecca

Baar, 14.06.2022



SENSE OF INDIVIDUALITY

ALDO VAN EYCK'S APPLICATION OF PHILOSOPHY.

By Shweta Devendra Joshi

ABSTRACT

As part of the course In-Depth Study on Dutch Structuralism – The Human Being at the Centre of House and City, this study focuses on the work and philosophy of its most prominent exponent Aldo van Eyck. After looking at Aldo van Eyck's core concepts of relativity, twin phenomena, the in-between realm and interiorization, this work analyses the relationships Aldo van Eyck establishes through his design at the Hubertus House and Netherlands Court of Audit. With his philosophy as a guide, we see how different use-cases are resolved by Aldo van Eyck's sensitivity to the requirements of the users whilst being equally sensitive to the environmental context of the sites' location. Based upon the two examples, this study can show that similar strategies are applied to resolve conflicts between twin phenomena yet lead to individual solutions.

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Aldo van Eyck's application of philosophy.
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1 INTRODUCTION

During last semester, we analysed paradigm shifts in the history of architecture taking a closer look at the era around 1968 in particular the building boom and counterculture in Switzerland. In the study Canton Aargau – Traces Of Transition, it was insightful to study the background and impact of the different stages of the industrial era on architecture in Switzerland at present. In that study, I observed how the human being gradually began to take center stage during the development and design of worker's housing.

During the Study Trip in the Netherlands this semester, it was fascinating to see the different forms of workers housing and the continued preservation of this industrial heritage today. With this on-site experience, it was very interesting to gain knowledge on the architectural discourse during the 1960s and 1970s in the Netherlands. In particular this era saw the transition of urban planning principles rooted in traditional modernism to a more complex understanding of the human being and the environment.

For this semester, I chose to analyse Aldo van Eyck's philosophy and his application of his concepts in two of his projects, namely the Hubertus House in Amsterdam and The Netherlands Court of Audit in The Hague. My main motivation was to take a closer look at arguably the principal proponent of change during an era of change. I was also drawn by and could relate to Aldo van Eyck's human approach to his design thinking. It is only natural that Aldo van Eyck's teachings had a significant influence on the next generation of renowned architects like Herman Hertzberger and Piet Blom.

In this study, I first briefly gather the necessary contextual background to appreciate the profound undertaking of change that was lead by Aldo van Eyck. This study then takes a closer look at Aldo van Eyck's core philosophical concepts relativity, twin phenomena, the in-between realm and interiorization. With a better grasp of his philosophical concepts, we take a closer look at the Hubertus House and The Netherlands Court of Audit by looking at Aldo van Eyck's design response to the chosen identifiable twin phenomena. It can be shown, that a similar approach to the in-between space is also used to resolve identical twin phenomena, resulting in a unique interiorization experience tailored to the intended user's specific context. A concise summary concludes this report. We now continue with a brief contextual background of the period.

2 CONTEXTUAL BACKGROUND

To understand the profound nature of change, I briefly look at the Congrès Internationaux d'Architecture Moderne (CIAM), a manifestation of the supremacy of the then contemporary classical modernist design philosophy and its literal end at a conference in Otterlo in 1959 by a group of young architects called Team 10. To contrast the classical modernist approach, we conclude the chapter understanding the significance of Aldo van Eyck's famed illustrations now known as the Otterlo Circles.

Congrès Internationaux d'Architecture Moderne (CIAM)

The international congress CIAM was held during 1928 to 1959 to search for a common analytical process to present challenges and work on possible solutions.¹ The congresses of "The Minimum Dwelling" in Frankfurt am Main in 1929 and "Rational Land Development" in Brussels in 1930 led to the congress in the summer of 1933 aboard a cruise liner organised by Sigfried Giedion, Cornelis van Easteren and Le Corbusier called "The Functional City"². It is in this latter congress of 1933 where the organisers setup an ambitious goal to address the city as a whole. It was a time of totalitarianism in Europe and in-between two World Wars. The congress was planned to be in Moscow with the Soviet Union planning large scale urban development projects. The congress was shifted due to political uncertainty to a cruise liner in the Mediterranean taking its participants to visit the Greek monuments. This inclusion of antiquity and the Mediterranean vernacular building also marked a shift in the architectural modernist view. By the use of the contemporary methods and tools for architectural analysis various normative approaches were developed. Le Corbusier reduced the city to four functions, namely work, dwelling, recreation and transport. To make the city more efficient these reduced functions were to be separated so as to make the function of the city more efficient deemed more appropriate for the "Machine Age". This approach fits in with other established movements of the time, namely the scientific management theories for instance. Frederick Winslow Taylor thought that systematic management was the solution to inefficiency. This included the normative approach of providing workers with and training them on the "best" method to complete a given task.³

During a conference in Otterlo in 1959 CIAM was dissolved by a young group of European architects called Team 10.⁴ Team 10, of which Aldo van Eyck was a core member, was a reaction against the inefficiencies of CIAM and its inability to address change and a strict focus on functionalism. Although the young group of architects practiced a different architectural language and had differing design concepts, they shared the same values, namely "the willingness to try and invent architectural language appropriate to the evolving present" according to Alison Smithson.⁵ To address this evolving present and re-interpret functionalism to the human scale, Aldo van Eyck developed a set of intertwined concepts.

Otterlo Circles

1 Lammers 24.06.2012.

2 Maurer Bruno u. a. 12-04-2022

3 lumencandela 2022.

4 Strauven 1994, S. 279.

5 Strauven 1992, S. 54.

The modernist approach defined through CIAM became a dominant current during post-war reconstruction. Aldo van Eyck took a pioneering role in questioning the rigid functionalism of the modern movement. During the Otterlo conference van Eyck showed a diagram composed of two circles, which became known as the Otterlo circles.

Three pictures are shown in the left circle: dwellings in the Algerian Sahara settlement of Aoulef, a contra-construction of Van Doesburg's 'Maison Particulière'

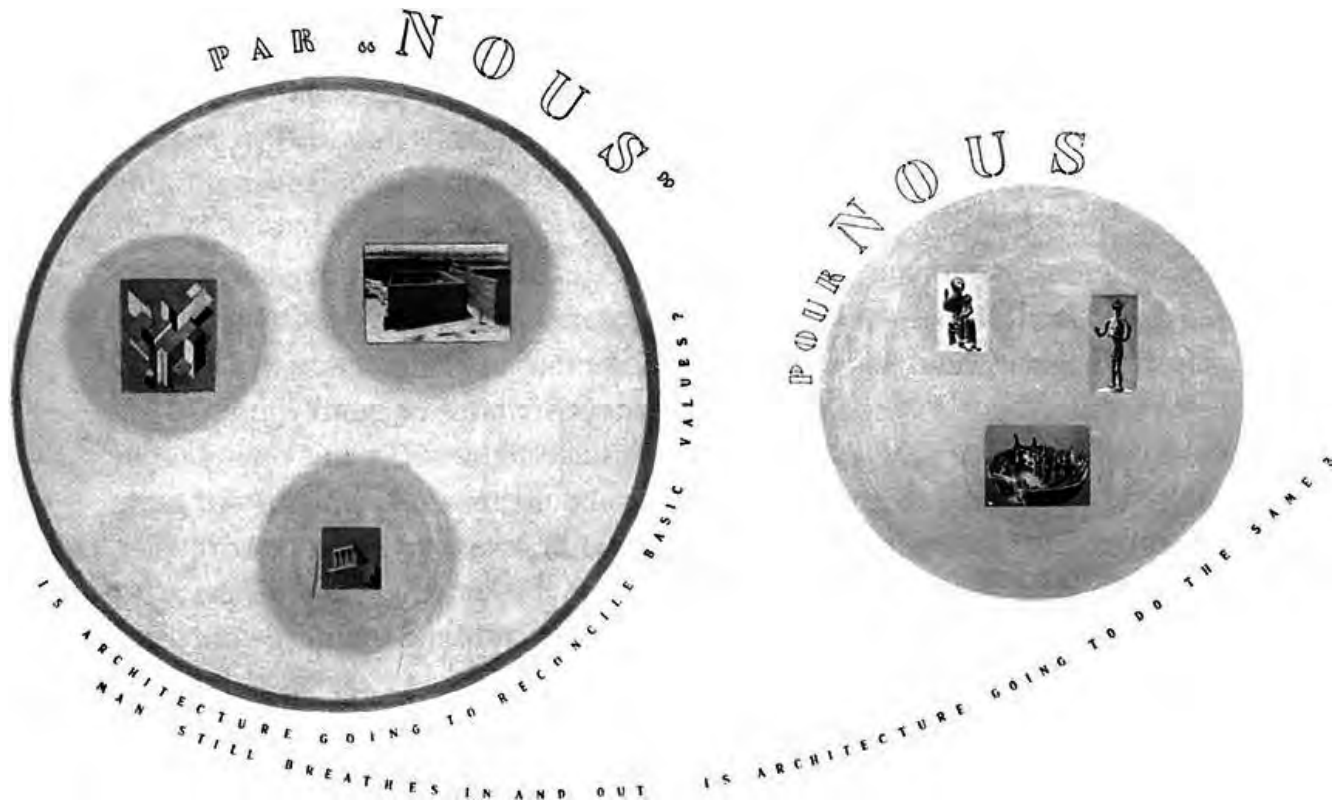


Fig. 1. The first version of Aldo van Eyck's 'Otterlo Circles' as presented at CIAM 11. (Otterlo, 1959).

(1923), and the Temple of Nike at the Acropolis in Athens (427–424 BC). The words 'Is architecture going to reconcile basic values?' are written outside the circle along with 'par "nous"' (French for 'by "us"'). Another set of three pictures are shown in the right circle, which is accompanied by the phrase 'pour nous' (French for 'for us'). They are a Sardinian sculpture of a sitting mother with child, an Etruscan sculpture of a standing man, and a Cypriot burial gift (ca. 2100 BC). The phrase 'Man still breathes in and out' connects both rings along with 'Is architecture going to do the same?'

The constants of space and time and constants that continuously change are represented by the archaic images in the right circle that represent that men, women and children have always been living in a form of society. In the left circle the contra-construction of Van Doesburg is symbolic for "non-Euclidian thought" representing a "new and dynamic concept of space". The other two images in the left circle represent the "wonder of Euclidian order" for which purpose an example of classical architecture and a building of common people were chosen.

The right and left circle show a reciprocal relationship between the past, present and future as well as between architecture and society. The images show the ever changing cultures and the constant factor of human nature. Aldo van Eyck understood, that due to climatic, cultural, religious or geographic circumstances, certain aspects of humankind are exaggerated with different countries having different

expressions of particular aspects. Even if certain aspects were more or less pronounced depending on the country due to the environmental factors mentioned above, the underlying aspects of humankind stayed the same. Aldo van Eyck underlined the importance of tradition and history on architecture today whilst at the same time emphasising the importance of modernity.

Perhaps van Eyck drew his inspiration for these circles from Brancusi whom he liked to quote: “on arrive à la simplicité malgré soi en s'approchant du sens réel des choses”.⁶ They are simple diagrams conveying complex thoughts and concepts, which can only be done by an intimate understanding of the real meaning of things. In the next chapter, we now proceed to the core concepts of Aldo van Eyck's philosophy.

6 van Eyck, *Ligtelijn*, Ball 1999, S. 11.

3 ALDO VAN EYCK'S PHILOSOPHY

In this chapter, we take a closer look at Aldo van Eyck's philosophy. Aldo van Eyck advocated his abstract ideas in his writings, teaching even through his buildings. To be able to understand how he incorporated his philosophy into his buildings it is important to understand his philosophy. We begin by understanding the concept of relativity which by its very nature is an omnipresent relationship between elements or entities of reality. We then move on to understand the concept of twin phenomena which describes the reciprocal relationship between elements or entities. The understanding of the twin phenomena leads us to its spatial interpretation in the in-between realm. Last, but not least we look at interiorization where we understand the different facets of human experience.

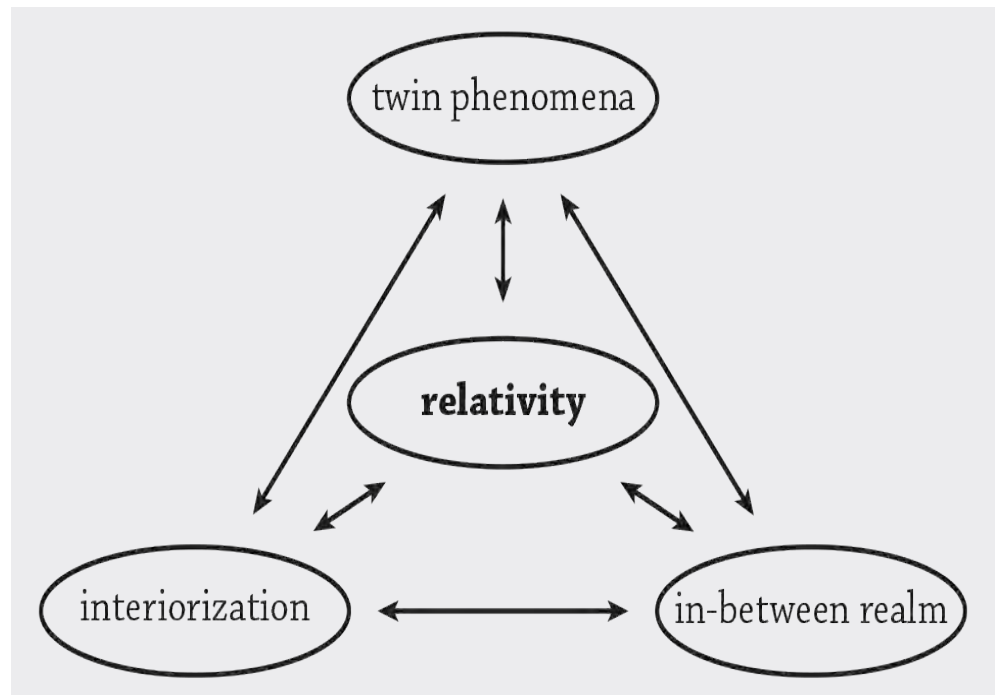


Fig. 2. The three notions - twin phenomena, the in-between realm and interiorization derived from the idea of relativity.

Relativity

Reality is the sum of different elements, i.e. space, time, matter, energy, etc. These constituent elements of a reality are interrelated. This interrelationship between the constituent elements of reality is just as important as the elements themselves. Each of these individual element's gain meaning by their relation to each other. The understanding of reality can only be achieved by taking into account relativity. To further understand relativity Van Eyck derives the concepts of twin phenomena, the in-between realm and interiorization. The concept of the twin phenomena aims to understand exactly what the relationship between elements or entities is and as such assumes an ontological role in the analysis of relativity. Once the relationship between entities is established, the context of how we understand or perceive our environment is an important next step in understanding relativity called interiorization. The in-between realm focuses on the relativity of the mental or physical space and is the spatial equivalent of the twin phenomena. In the in-between realm Aldo van Eyck aims to define and address the in-between spaces.⁷ These three notions help in understanding relativity and with it the perception of reality.

⁷ Lammers 24.06.2012, S. 44–45.

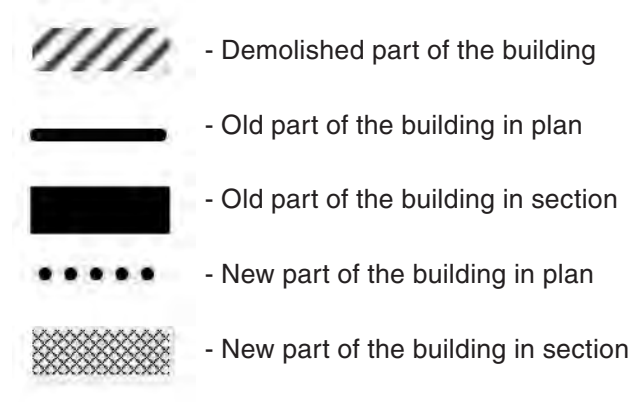
Interiorization

Whereas the concept of twin phenomena represents the ontological side of Van Eyck's theory by elucidating how entities can be meaningful, the concept of interiorization represents the epistemological side: it is his attempt to comprehend how we, as humans, are able to comprehend our built environment, i.e., how we relate to it and how we anticipate that it works. This requires an understanding of our nature, our cultures, of humankind itself. Due to the abstract nature of this concept, it is very difficult to universally define the relationship between humankind, society, and the built environment.¹³

It is here, that we must remember the Otterlo Circles to fully comprehend the concept of interiorization. Aldo van Eyck recognized that certain characteristics of humanity are accentuated as a result of climatic, cultural, religious, or geographic circumstances, with different geographic regions expressing these qualities differently. Even if key characteristics of humankind were more or less evident depending on the geographical region due to the aforementioned environmental conditions, the core aspects of humanity remained the same. This is a key understanding of human nature, of society and human civilization as a whole. Once an architect understands this basic reality, he or she will be able to imagine the experience of the individual and collective to a specific context.

In the next chapter, we experience the application of Aldo van Eyck's philosophy in two of his projects, the Hubertus House in Amsterdam and The Netherlands Courts of Audit in The Hague.

Legends used in images



¹³ Lammers 24.06.2012, S. 51–53.

4 SENSE OF INDIVIDUALITY

Fig.3. Aldo van Eyck.



Complementary or opposing aspects, qualities or notions (twin phenomena I have called them two by two), such as open-closed, inside-outside, old-new, often brought up here with others like large-small, many-few, far-near, light-dark, unity-diversity, single-plural, part-whole, similar-dissimilar, rest-movement, order-chaos, space-matter, individual-collective, form a vast network of meaning from which nothing can be lifted – no twin phenomena(or twin phenomena-split-in-two) extracted without impoverishment or becoming altogether meaningless – mind-splitting.

- Aldo van Eyck ¹⁴

¹⁴ Hertzberger, van Roijen-Wortmann, Strauven 1982, S. 43.

In chapter 3, we took a closer look at some aspects of Aldo van Eyck's philosophy like relativity, twin phenomena, in-between realm and interiorisation. All these aspects are interconnected or related to one another. In this chapter, I will trace the design elements in Aldo van Eyck's buildings, which show the relation with certain aspects of his philosophy. This is to understand 'How Aldo van Eyck translated his philosophy into built form?' and 'How his philosophy allowed him to give his projects the distinctiveness they have?' To study and understand the chosen case studies, I decided to focus on twin phenomena. To begin with, different twin phenomena elements like old–new, open-closed, inside-outside, etc. are identified in both the case studies. The design elements falling under a similar category are put together to see the difference in the way, Aldo van Eyck dealt with them.

The works of Aldo van Eyck are varied, be it playgrounds, offices or public buildings. Although on the first look they show some similarities, every project is unique in its own way. This uniqueness stems from the application of his philosophical approach. In this chapter, I am going to look into two of his works. The chosen case studies for the analysis are the Hubertus House in Amsterdam (Fig 4) and the Netherlands Court of Audit in the Hague (Fig 5), which was the last project of Aldo van Eyck. These two case studies have a few similarities and are yet quite different. The similarities make it interesting to compare them and establish a relationship between them and Aldo van Eyck's philosophy which will be the main focus of this chapter.



Fig. 4. The Hubertus House, Amsterdam. 1973-1981

Fig. 5. The Netherlands Court of Audit, The Hague. 1992-1997.

I will begin with contextual information about both the projects, as it played an important role in the design strategy of Aldo van Eyck. One of the two case studies is the Hubertus House in Amsterdam (Fig 4). The Hubertus Association was a social rehabilitation centre for single parents and their children. They gave temporary accommodation and support to the mothers and their children and prepared them to face the world or community again. Since 1926 the association accommodated two 19th-century residential buildings on Plantage Middenlaan. In 1973 Aldo van Eyck was given the work of renovation and extension of the facility, accompanied by Hannie van Eyck who worked on the interior of the building. As mentioned by Van Eyck, The Hubertus was about equality and he envisioned an open yet protective house and environment.¹⁵

The Hubertus association used to support single parents and their children, or pregnant women. Those mothers needed support due to emotional problems and can't function on their own. All they want was a secure place. The Hubertus House,

¹⁵ Hertzberger, van Roijen-Wortmann, Strauven 1982.

Aldo van Eyck designed this building with sensitivity. He placed all the functions in the building very precisely. The parent's living room was placed in the old building as it was already familiar to the parents. As the living room occupies the full length and width of the old building, it forms a link with the city in front and the children's nursery in the back. The rooms for parents were located on the floor above the living room or on the same floor. The babies are on the top two floors, whereas the nurseries for the kids is located on the ground floor next to the playground.¹⁶

The second case study is The Netherlands Court of Audit, in The Hague (Fig 5). The Court of Audit is a state institution, that controls the spending of the government, which puts them above all other departments and ministers. In 1992 Aldo and Hannie van Eyck received their first public building project. The building was built during 1995-1997 in the historical centre of The Hague. The original site between the grand Lange Voorhout and Kazernestraat, consisted of multiple old buildings that did not fit well together and did not fulfil the requirements of a modern office building.¹⁷

During a visit by the Van Eycks at the previous offices of the Court of Audit, they noticed, that most doors were left open with staff frequently walking into each other's rooms and talking to each other on the landings or coffee corners. The offices in the new building are located around the circular staircase increasing the access of the staff to each other both horizontally and vertically. The rooms are polymorphic and of various sizes with each room having more than four walls and light flooding in from many angles. The conference rooms are located on the inner ring of the large circle in the heart of the building, which also houses the central part of the building containing the library. This is a quality the staff very much appreciate as it helps them deal with the diversity of challenges at their workplace. Just as audits are meant to improve government works, so is the design meant to increase the efficiency of audits.¹⁸ The experience of users is what interiorization is all about.

4.1 OLD & NEW

"I believe that buildings which misbehave towards what exists outside them will also tend to misbehave towards what is inside them." - Aldo Van Eyck.¹⁹

One of the most prominent twin phenomena visible in both the case studies is old and new. As the old and new are contrasting elements they tend to conflict with each other. The physical space where the two contrasting elements come together in a complimenting manner that resolves their conflicts is the in-between realm. The in-between realm is another aspect of Aldo's philosophy that evolved from and is related to twin phenomena. Let's look deeper into how Aldo van Eyck came up with a solution to the conflict of old and new in Hubertus House and Court of Audit. The functions that need to be performed in these two buildings are different from each other. This means the spaces in both buildings will require a different character and quality to them too.

The two projects have old structures on the site as well as around them. Aldo van Eyck's sensitive approach toward the surroundings and the old structures on the site gave these projects the special qualities that they have. This similarity of the

16 Hertzberger, van Roijen-Wortmann, Strauven 1982.

17 Alegemene Rekenkamer 20.03.2022.

18 Salomons, van Eyck 1999, S. 6-7.

19 van Eyck, Ligtelijn, Ball 1999.

two projects gives a common ground for the comparison and establishing the relation between built work and the philosophy of Aldo van Eyck.

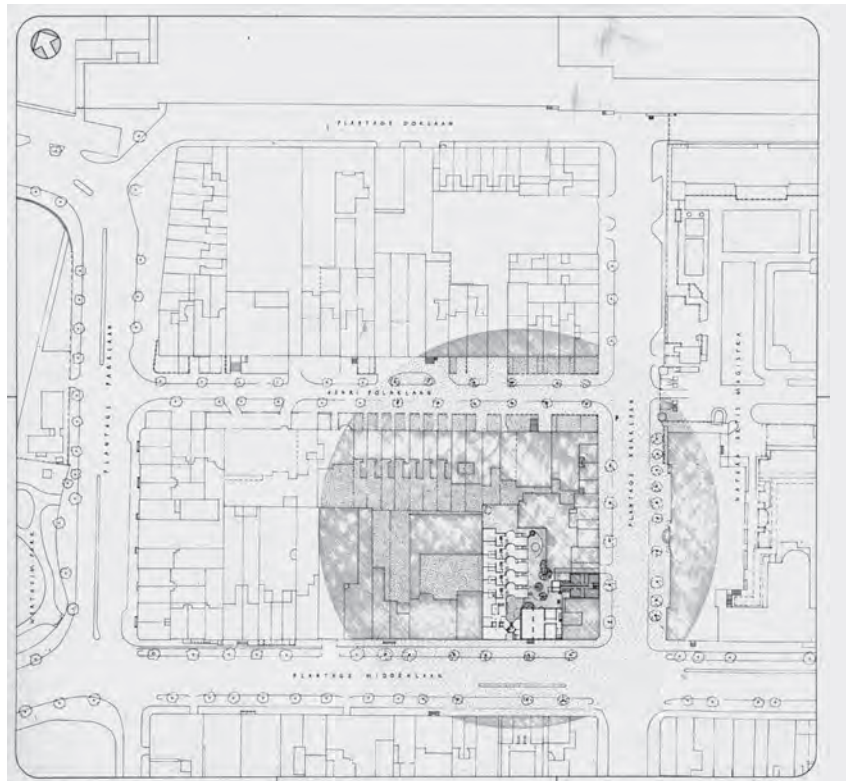
The Hubertus association accommodated two 19th century residential buildings for single parent housing since 1923. In 1970 a neighbouring building of the Talmoed Thora synagogue was purchased to expand the facility, but the accommodation was lacking in the qualities that were required for efficient working of the organisation. In 1973 Aldo van Eyck was given the work of conversion and extension of the facility, For this purpose, the building in Fig. 6 was renovated and the building visible in Fig. 7 was demolished. The association wanted a building to be open and closed, "open and protective at the same time" as mentioned by Aldo van Eyck in his writing.²⁰



Fig. 6. Hubertus house old building which was renovated.

Fig. 7. Old part of Hubertus House which was demolished.

Fig. 8. Master plan of whole block.



20 Hertzberger, van Roijen-Wortmann, Strauven 1982.

The Hubertus house is located in a traditional block on Plantage Middenlaan (Fig 8) in the centre of Amsterdam city. The new part of Hubertus house stands out from its surroundings. The massive base is supporting the structure above made of glass and steel, as well as painted with vibrant colours. The building has a different response to both of its neighbours. On the right side of the site, a retaining wall was constructed. The retaining wall goes a little higher than the neighbouring structure for reasons of privacy with the respective neighbour. There was a teaching training college on the left side and the new part of the Hubertus house is establishing contact with the neighbouring building by stepping down towards it.

The Court of Audit was functional in multiple old buildings on the premises, some part of which was demolished (Fig 9) to make way for the new building. The historic grand mansion (Fig. 10) on Lange Voorhout was connected to the new building of the Court of Audit (Fig.11). The site for the new building was at the back of the mansion and the Kloosterkerk church (Fig 12) which is at the corner of Lange Voorhout and Parkstraat. At the rear of the site is Kazernesstraat which is a modest residential street. Some of the requirements were that the new building should not be visible from the Lange Voorhout, and another was that the entry of the Court of Audit should be from the backside.²¹

Fig. 9. Site Plan showing demolished part of the old Court of Audit.

Fig. 10. The mansion - old part of the Court of Audit on Lange Voorhout.

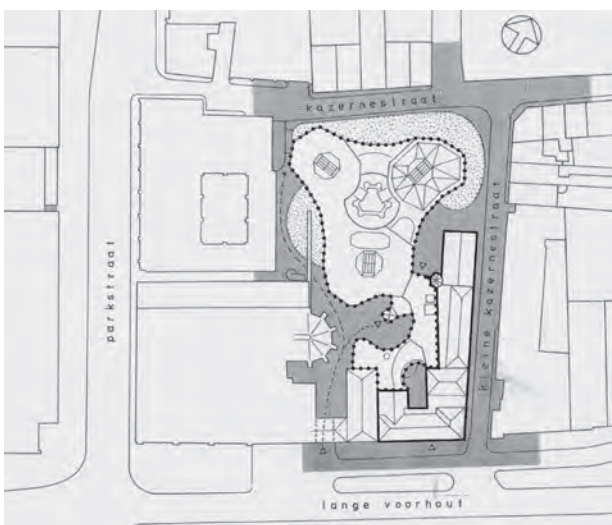
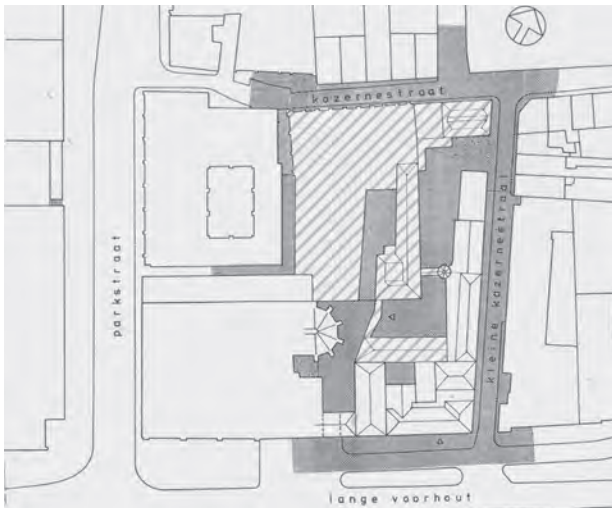


Fig. 11. The old and new buildings of the Netherlands Court of Audit.

Fig. 12. The Kloosterkerk Church (ca. 1400).

²¹ Salomons, van Eyck 1999, S. 16.

The design of the multi-coloured building does not follow the stipulated building lines like the buildings surrounding it.²² Van Eyck's proposal was denied by the Department of monuments as it was not as per the rules and regulations. As per the requirements, the new building should be built along the edge of the site and create a solid wall along the street. The rules were to maintain the characteristics of the historic centre.²³ The design of the building was so unique that the reservations of the department of historic buildings were overruled by the other municipal authorities.²⁴ The curved facade of the Court of Audit creates breathing space with greenery in the densely built block. The contoured façade of the building touches the building line at some places but draws itself back gracefully to form a concave curve. This was done to achieve the right external space. Public space (Fig 13) is

Fig. 13. Entrance court between church and new building.

Fig. 14. Arched gateway on Lange Voorhout.



Fig. 15. Restored old cloister wall.

Fig. 16. View of building from Kazernestraat.

created between the church and the entrance of the building. The entrance court is accessible through an arched gateway on the Lange Voorhout (Fig 14). During the demolition of one of the buildings, an old cloister wall was found. Aldo van Eyck preserved the wall with gothic archways (Fig 15). Whereas the cloister wall is for a covered walk or open gallery, one might be amused to say that, due to the dense structures, the form here is inverted with the building representing the open courtyard and the pathways being the gallery. On the side of Kazernestraat the building sets behind the garden (Fig 16).

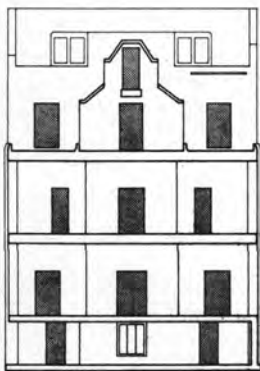


Fig. 17. 12 openings were created in the wall of the old building to connect the old and new parts.

In both cases, Aldo van Eyck's approach was purely contextual in dealing with the existing structures around the site. He created buildings which do not follow the language of surrounding structures, yet still, the new buildings try to establish a relationship with the surrounding buildings.

After seeing Van Eyck's approach in responding to existing surroundings, we now will explore his approach to resolving the conflict between old and new parts on site. The Hubertus house is located in a densely built block where houses are

22 Salomons, van Eyck 1999, S. 11.

23 van Eyck, McCarter 2015, S. 220–221.

24 Salomons, van Eyck 1999, S. 19.

connected from front to back with a common wall in between to separate them. The building of the synagogue was demolished to accommodate the new building of Hubertus House. There was a wall which was separating the two buildings. Aldo van Eyck created 12 openings in that wall (Fig 17) to integrate the old part with the new part and make them work as one entity. The wall which was separating the two buildings is now unifying the old and new parts of the Hubertus house, beyond this point the in-between realm begins. The space where two elements will interchange their qualities with each other.

Fig. 18. Hubertus house - Section. Irregular levels of the old part are extended into the new part.

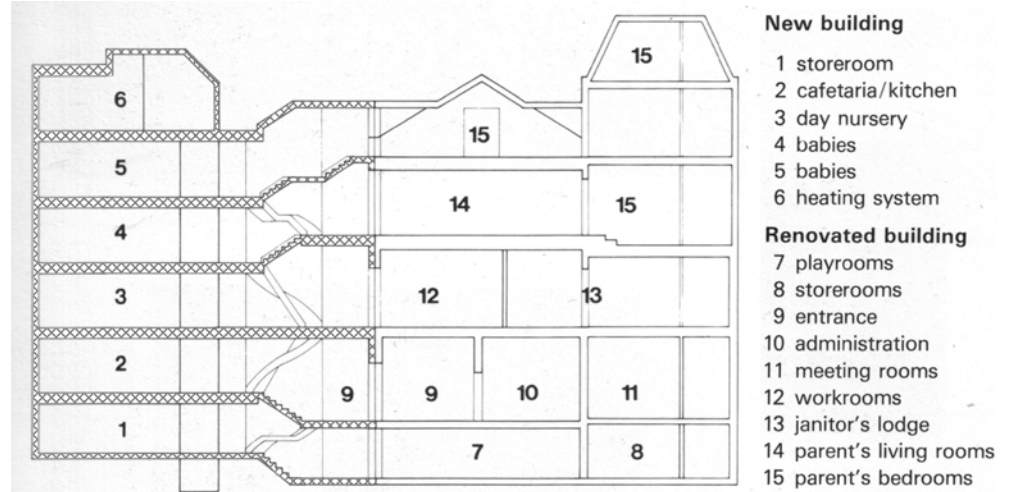
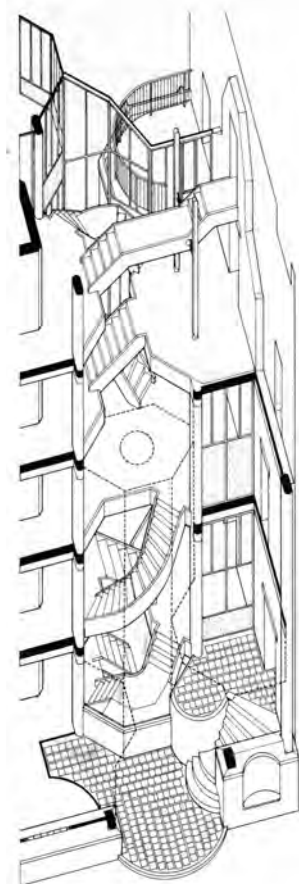


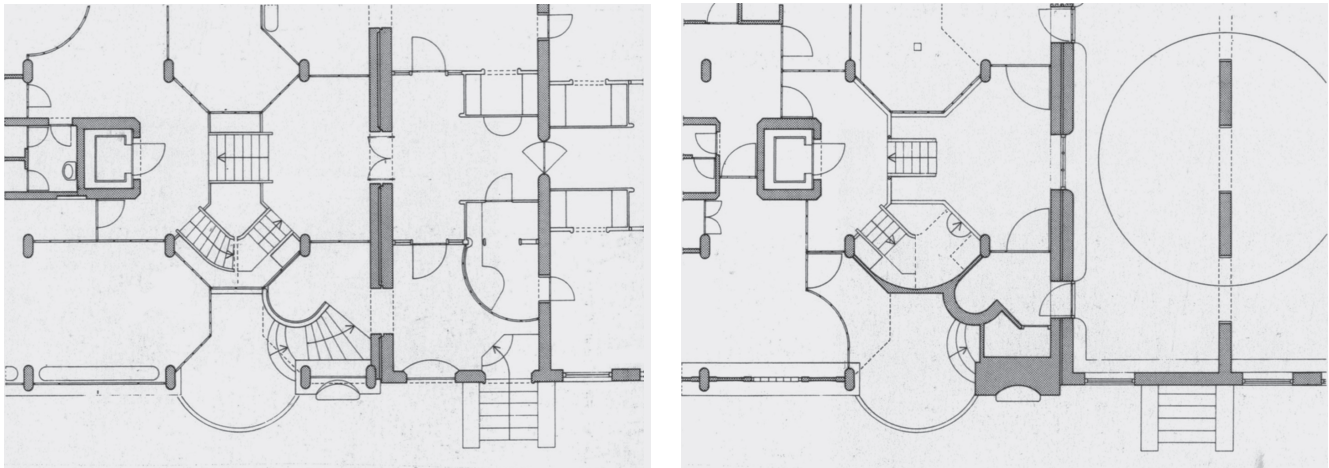
Fig. 19. Levels of old continuing in new are visible in the facade.
Fig. 20. Isometric view of staircase hall.



The next point of conflict in integrating old and new was the varying heights of the old building. The levels in the new part are of the same height. Van Eyck extended the levels of the old part into the new part (Fig 18). The continuation of the old resulted in the form of bay-window rooms accessible from the old part. The split levels on every floor are connected by the means of a flight of stairs, other than the main curved staircase. Only on the first floor, the level of the old part continues throughout the new part. Here where the old integrated with the new, and exchanged their characteristics to become one, is the in-between realm. The extension of old into new is done in the same functionalist style as that of the new part. The different levels of old and new are visible on the façade of the new building (Fig 19). The main curved staircase, a focal point of interaction, is the manifestation of a relationship between two contrasting elements. The staircase is a pivot between

the old and new as well as between the street and courtyard, it can be said that twin phenomena are taken care of by the in-between space. The staircase core is recessed behind the building line. It is not due to any marginal restrictions but it is there to highlight the connection between the old and new. As the staircase is set behind, the old and new parts look into each other from similar chamfered bay windows. The resulting width of the new part due to the creation of the focal point is the same as its neighbouring building. The staircase is different on every floor. Up to the first floor, the staircase is located in the front, giving a view of the street. From the first floor onwards the staircase is located at the back with a view of the courtyard. The yellow colour was used for the glazed staircase hall as it is the lightest, most luminous and most transparent colour amongst all the others.²⁵

Fig. 21. Mezzanine Floor plan.
Entrance through the old building.
Fig. 22. Ground floor plan. Entrance to lift lobby.



The entrance is an in-between space between inside and outside, which connects them. In Hubertus house, the entrance is pushed behind by 12 feet from the façade of the old building and makes way for an open porch. The open porch is accessible through the main door of the old building from the street (Fig 21). The open porch extends into the new part as a covered porch through an opening in a wall between old and new. On the ground floor, the pavement area in front of the staircase hall leads towards the steps on the right side approaching the covered porch (Fig 22). In this way, the old and new are forming a loop with Plantage Middenlaan (Fig 23). The exterior meanders through the interior. Aldo van Eyck designs a delayed entrance which allows the exterior to move through the interior, for them to become an experience.²⁶ On the ground floor, the entrance to the lift lobby is another transi-

Fig. 23. Entrance looping through the old and new parts of Hubertus house.
Fig. 24. The in-between realm.



25 Hertzberger, van Roijen-Wortmann, Strauven 1982.
26 Strauven 1998, S. 461.

tion space between the Hubertus house and the public footpath, it appears as the pavement continues beyond that entrance door. He created an in-between realm by carving out a sitting area on the wall of the covered porch and the public footpath (Fig 24).²⁷

Fig.25. The entrance foyer where old and new meet.

Fig.26. New part of the Court of Audit appears to be disconnected from the new part but it is well connected to the old part.



As we saw, the twin phenomena of old and new played an important role in defining the built form of the entire complex. In the Netherland Court of Audit, an old mansion is present on the site which is integrated with the new section of the building. One of the conflicts was the varying floor heights of the old mansion. Aldo van Eyck resolved the complications of levels in two different ways in two different parts of the new building. One of the two places where old and new interact with each other is the entrance foyer (Fig 25). In this entrance foyer, the lift and staircase (Fig 27) are placed next to the old building to take care of the level difference between the old and new. The section in Fig 28 shows the staircase connecting old and new parts, which is different on every floor. The lift is placed next to the wall of the old building and the lift doors open on both the old and new parts.



Fig.27. Main staircase between old and new

27 Hertzberger, van Roijen-Wortmann, Strauven 1982, S. 59.

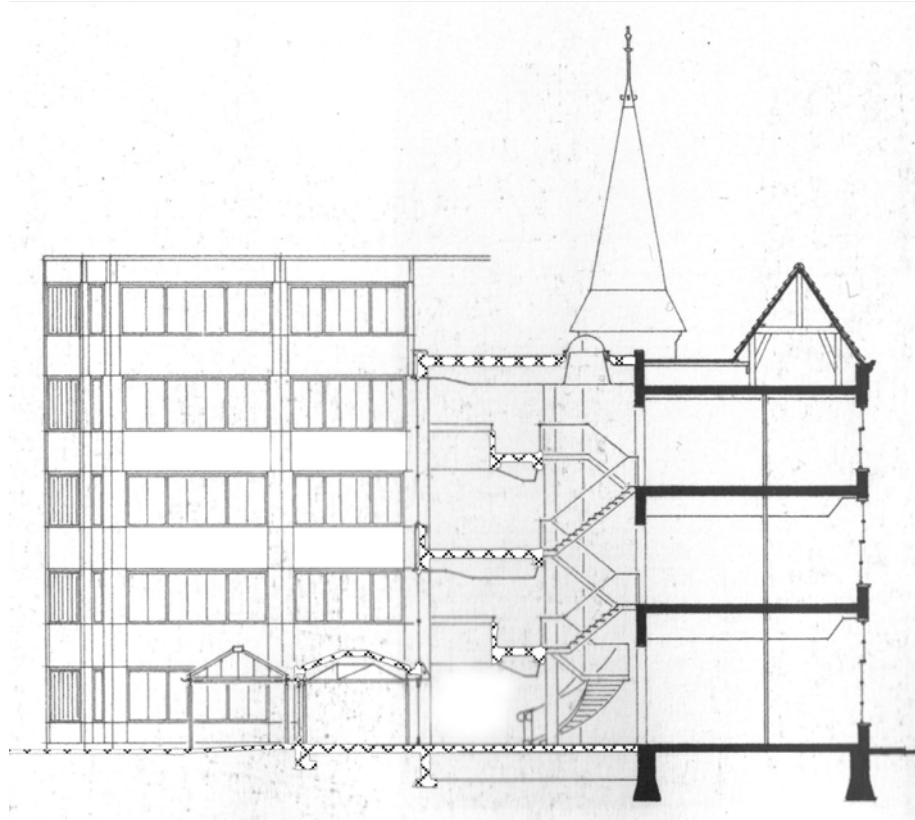


Fig. 28. Section through entrance foyer shows the staircase connecting the old and new parts.

Fig. 29. Section showing Old mansion on left, new part with extended levels of old in the middle and new part with regular levels on right.



Fig. 30. The entrance court between the old church and new building of the Court of Audit.

Fig. 31. The entrance porch. An in-between realm.

The second place where the old and new merge is at the corner of the old building, marked in Fig 26. In the section in Fig 29, we can see that the levels of the old mansion are extended in this new part but it is completely disconnected from the other part of the new building. A wall is disconnecting this part of the new building from the entrance foyer to avoid conflicts of levels. This difference in levels is visible in the façade of the entrance court.



The entrance to the complete complex is given through an archway on Lange Voerhout. As we move inside from the archway, on the right is an old house and on left there is the church nave. A Public space, an entrance court is carved out on the right between the church nave and the new building (Fig 30). As per requirements given to Aldo van Eyck, the entrance for the complete complex should locate on the back side. This is a transition space between the public space and office space. Here the entrance porch works as an in-between (Fig 31).

4.2 SIMILAR- DISSIMILAR

Fig. 32. The colourful new part establishes a relation with the old part of the Hubertus House.



Similar and dissimilar, twin phenomena that I observed in both the case studies. The most prominent dissimilarity is the language of the new buildings with old buildings on-site and around the site as well. The exclusive use of colours by Van Eyck for both the buildings make them stand out and create diversity.



Fig. 33. The window frames of the old building are coloured to indicate a relation between old and new.



Fig. 34. Concrete frame of the new building painted in light grey.

The Netherlands Court of Audit building exhibits contrasting characters. It is like experiencing two different buildings. Unlike Hubertus house, the façade of the Old Mansion on Lange Voorhout (Fig37) doesn't give any hint of connection with the new building behind it. Aldo van Eyck used blue and grey ceramic for Façade. The Façade along the entrance court has grey tiles in blue tiles and the façade of the new building on Kazernestraat has blue tiles in grey tiles (Fig 36), accompanied by vertical and horizontal bands of sixteen active colours and timber window frames.

Fig. 36. The new building on Kazernestraat.

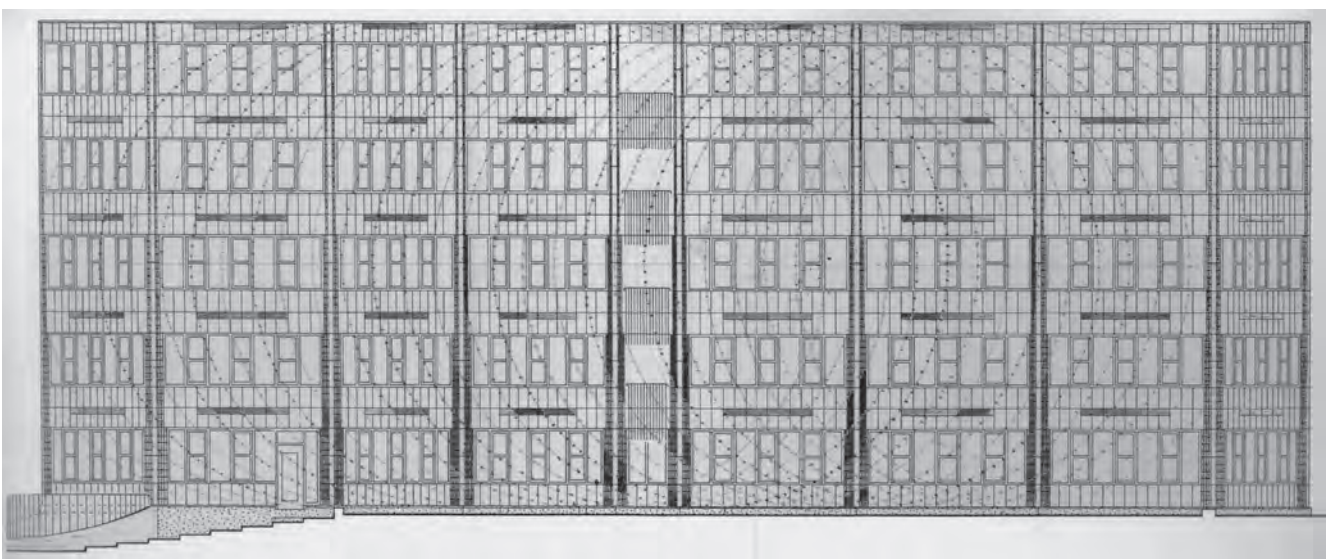
Fig. 37. The old Mansion on Lange Voorhout.



The colour design of the façade was made by Jaap Hillenius. For vertical and horizontal bands Jaap Hillenius come up with a scheme by drawing concentric circles on the elevation (Fig 38). The grey and blue ceramic tiles and the reflection of the grey and blue sky in the windows create a screen-like effect. The windows offer transparency to the Court of Audit of the Netherlands and a glimpse of the interior.³⁰ Colours used outside were used in the interior of the new building. The hints of the same colours can be traced in the old building too (Fig 39). The colours tiles used in the façade of the new building were used on the top of the cloister wall (Fig 40). A single row of tiles was placed on the top of the cloister wall to establish a relationship with the Court of Audit.³¹

The old and new parts of the buildings exhibit strong contrast at first sight. On inspecting the buildings carefully one can find that old and new parts are well integrated and work as one entity together. The old and new parts of the buildings are exchanging their characters while merging to become one.

Fig. 38. The colour scheme given by Jaap Hillenius.

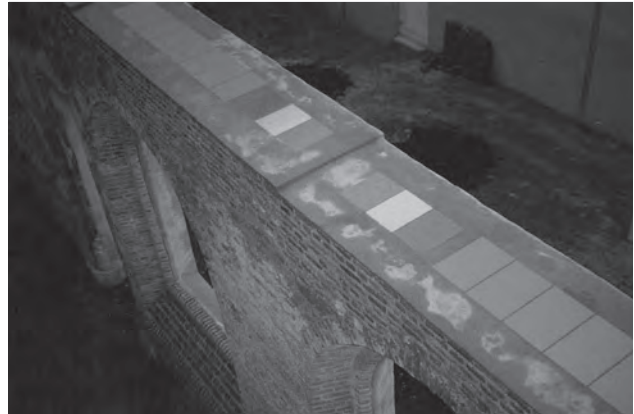


30 Salomons, van Eyck 1999.

31 Salomons, van Eyck 1999, S. 28.

Fig. 39. The yellow circle in the old staircase.

Fig. 40. Old cloister wall with colour tiles on top.



4.3 INSIDE – OUTSIDE

I observed some elements which relate to this twin phenomena. In Hubertus house, Aldo van Eyck developed the space enclosed between the old and new parts as a playground. It is an outside world brought inside. The terraces (Fig 41) of new and old buildings look onto the play area which then connects with the children's nurseries. The terraces here are the in-between between inside and outside. On the front facade, the central windows (Fig 42) of the canteen and common rooms are designed with curved transoms. This was done for an unobstructed view from inside. These windows are also the in-between between inside and outside.

Fig. 41. Playground between old and new parts of the Hubertus.

Fig. 42. Windows of the canteen.



In the Court of Audit, the inside and outside were resolved differently. On the 2nd floor on top of the library, Aldo van Eyck created a terrace garden surrounded by offices (Fig 43). An outside world is brought inside. At the entrance, the porch between the inside and outside is an in-between realm (Fig 44). It is a transition space between inside and outside. Fig 45 is showing the area above the entrance hall, which is between the inside and outside. Another place where inside and outside are resolved are coffee corners. Small balconies are hanging on the façade outside the coffee corners in the new part of the office building (Fig 46).

There is no inside without outside. Aldo van Eyck has expressed this relationship between inside and outside in different ways in both the case studies. When it comes to twin phenomena inside and outside, the elements like door, window,

Fig. 43. Terrace garden surrounded by offices on the 2nd floor of Court of Audit.

Fig. 44. The entrance porch, an in-between realm.



Fig. 45. Between inside and outside, above the entrance hall.

Fig. 46. Balconies outside coffee corners.

entrance, terrace, and balcony become the in-between realm for them. Aldo van Eyck paid a lot of attention while dealing with these elements. I could mention only a few elements in this study, but it is interesting to look at all of them.

In this chapter, I tried to focus on twin phenomena and show how all other aspects of Aldo van Eyck's design philosophy are related. The twin phenomena is all about uniting two opposing poles. The most obvious way to unite twin phenomena is to establish in-between. This is the place where the opposing qualities of the two poles adapt with each other to integrate. The space which is the result of this integration should have the presence of both the polarities but in a complimentary way. The in-between can appear between two different interior spaces or interior and exterior spaces. In both the case studies, we saw the interaction of old and new parts in an in-between space inside the building. Whereas the entrance of Hubertus House is a good example of in-between that occurred between old and new where the exterior flows through the interior.

Based on the analysis of both the case studies, I can say that Aldo van Eyck had one philosophy and he applied it in the same manner, even after designing both the projects years apart. The case studies sometimes even show that the design strategies are similar, but the outcome is different. The context of both the projects was different which had a major impact on outcomes.

5 CONCLUSION

Aldo van Eyck's attempt of capturing and structuring the complex relationships that reflect the complex reality in words is an ambitious endeavour to say the least. To be able to recognize this complex reality and respond in design is, in theory, an almost infinite creative and design undertaking.

In the two analysed case studies the Hubertus House and The Netherlands Court of Audit, we also see similar design strategies for the in-between realm applied to resolve similar twin phenomena leading to a unique interiorization experience rooted in the context of the intended user. The case studies were analysed on the basis of similar twin phenomena like old-new, inside-outside, and similar-dissimilar. Surprisingly the design strategies, which were employed to bring the two polarities together are also the same. In both the buildings to resolve the conflict between old and new, Aldo van Eyck extended levels of old into new and connected them utilizing a staircase, but due to the situation on the site, the result of the same strategy was different. In Hubertus house, the levels of the old part extended to the new part and the staircase became a focal point bringing them together. Whereas in the case of the Court of Audit, Aldo van Eyck split the new building into two parts to extend the levels of old into one and to connect the other portion of the new building with the help of a staircase. It was entirely contextual that the results of the same philosophy and same design strategy applied to two different buildings were totally different. The most important thing is while working on the projects he always kept the users or the humans and their experiences at the centre of the project, i.e. interiorization.

Aldo van Eyck's philosophy also delivers a message to architects. Even though the environmental conditions of a certain place affect the visibility of some human qualities, the essential components of humanity remain the same. As a result of this insight, we gain a broader perspective on human nature, society, and civilization. When an architect grasps this fundamental truth, he or she will be able to envision how an individual or group will feel in a certain setting irrespective of the cultural or better said environmental context. This understanding is not yet prevalent in society or in design thinking today and is truly a beautiful message which we need to spread.

Fig. 43. Terrace garden surrounded by offices on the 2nd floor of Court of Audit.

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THE CREATION OF POST-WAR CULTURAL LANDSCAPES IN NAGELE

WIM BOER, ALDO VAN EYCK, MIEN RUYS

by Jacopo Ruggeri

ABSTRACT

The essay investigates the scaping solutions of Aldo Van Eyck, Mien Ruys and Wim Boer in Nagele during the post-war period.

The term cultural landscape derives from the first design assignment planners of the North East polder were tasked; to harmonise the rational composition of the polder with its spatial expression. After the war, Wim Boer, Aldo Van Eyck and Mien Ruys, as members of De 8 and Opbouw, converge in Nagele to net a close collaboration.

Strong in their dutch heritage and new post-war ideas, they are unafraid of extending the technocratic approach of modernism to open spaces; and bear, at the same time, a new sensibility that looks at the landscape as the glue amid the separation of functions.

Wim Boer appreciates the beauty of living plants in a clear and straightforward set of lawn, shrubs, trees and paving, yet strives for architectural clarity when marrying nature to the community needs. The in-between materialises in Van Eyck's playscapes and takes shape; his espousal of Van Doesburg's thesis that art cannot be divorced from real life goes on a parallel thought trajectory with Mien Ruys, who deems nature inseparable from real life. Mien Ruys, who oversees the planting in Nagele, and designs the ecumenic cemetery, famously dismissed the architectural treatment of trees and shrubs to stress that the goal of planting should be to accentuate an urban scape's living quality.

The study reveals a unique approach to landscape production as integral to consolidating living human environments and nurturing relations of the parts with the whole.

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The post-war creation of cultural landscapes in
Nagele

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1 INTRODUCTION

After the end of the Second World War, the spread of a new neighbourhood idea among urbanists and planners testifies to the return of humanism in architecture and urban design.

Those designing open, free spaces offers likely the best vantage point to observe and stimulate the interplay between individuals, the community and the environment.

For this reason, I've been keen to look into Van Eyck's work in this field from the start and excited about the work of Wim Boer and Mien Ruys, who, it is fair to say, very little is known about outside the Netherlands.

Initially, my wish was to write the essay by looking at separate works by each. It was only after I visited the village of Nagele during the study trip and was met face to face with their built work in one place that I resolved to use the case of Nagele to make a point on the significance of the results of their collaboration. They operate under a common scope as members of the De 8 and Opbouw but have different backgrounds and are each equipped with different sets of skills. Wim Boer is very much a landscape architect, interested in the planting as much as in the architectural clarity; Van Eyck is both a humanist and an architect, while Mien Ruys works with the tools of the garden architect.

Their interventions must be radical in the era of post-war objectivity. Functionalism plays a vital role in architecture before the war but is brought into the realm of landscape architecture only in the 50s, during the reconstruction age.

Remarkably, the often no-frills attitude that marks that "no nonsense era" holds a profound understanding of the needs of human beings in urban and natural environments and a vision for what use people should make of said environments.

I would like to acknowledge the assistance of Joost Emmerik, landscape architect, researcher and head of the master's program in landscape architecture of the academy of architecture, Amsterdam, and architectural historian Lara Voerman, in providing me with indispensable bibliography and ideas.

I am grateful to the voluntaries of the Nagele Museum for dedicating their free time to disseminating and sharing their proud social and architectural heritage.

I thank everyone for their time and generosity.

2 A NEW NEIGHBOURHOOD IDEA FOR NAGELE

The North East Polder polder measures 26 km from north to south and 24 km from east to west; the area includes the former islands of Schokland, visible from the village of Nagele, beyond the windbreak across the Nagelertocht, and Urk. After completion of the Afsluitdijk in 1932, dikes are built between 1937 and 1941, and the polder becomes finally dry in 1942. Coordinated multidisciplinary planning encompassing architecture, urban planning, landscape architecture, civil engineering and sociology has culminated in an extraordinary example of a fully designed landscape from the twentieth century.¹

Nagele is equally exceptional, for here, too, influential Dutch architects collectives from the post-war period converged to design the village according to new post-war ideas. Nagele is systematically separated in primary urban functions—living, working, traffic, and recreation.²



Fig. 1. Sketch plan for the North East polder by the Landscape Department of Staatsbosbeheer, 1943



Fig. 2. Front page of *Wij en de wijgedachte* pamphlet illustrated by W.F. Geyl, 1946



Fig. 3. Aerial view of Nagele today

1 Nijhuis, 2020. p.216.

2 Nijhuis, 2020. p.219.



Fig. 4. Illustration from the pamphlet *Wij en de wijgedachte* depicting the affinity between men and nature

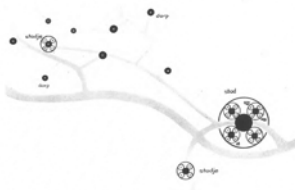


Fig. 5. Illustration from the pamphlet *Wij en de wijgedachte* showing the principle of reversibility of village, town and city

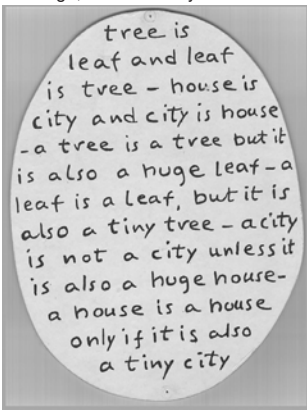


Fig. 6. Poem by A. van Eyck on the reversibility of the part with the whole, of tree and leaf and, of house and city

Fig. 7. Illustration from the pamphlet *Wij en de wijgedachte* on community life as a series of concentric rings



- 3 Hellemond, 2021. p.4.
- 4 Bijhouwer, 1947. p.9.
- 5 Hellemond, 2021. p.4.

2.1 THE INVOLVEMENT OF DE 8 AND OPBOUW

The group De 8 picks the North East polder to contribute to the 7th Ciam congress in Bergamo, as a realistic location to arrive at a contemporary shape for a Dutch village. Around the same year, the Zuiderzee directorate officially commissions the group a urban plan for Nagele.⁶The principle as formulated by members of the group is based on the view of the polder as "mechanised landscape, on a scale that first falls within the reach of the motorist and contrasted with the village with its own landscape with a free interior space at its core".⁷

The forest becomes paramount in dividing the two, the exterior universe of the polder, exposed and insormountably wide, and the interior, where the elements of the village find place. The division is twofold, practically as windbreak and ideologically, removal of the polder from view. This assignment is in line with the idea that the modern agricultural labourer is regarded as an industrial worker. Since the intertwining of work, living and leisure must be discouraged; the fields are shunned from view because they are considered a workplace.



Fig. 8. Poster for the 7th CIAM congress in Bergamo, 1949

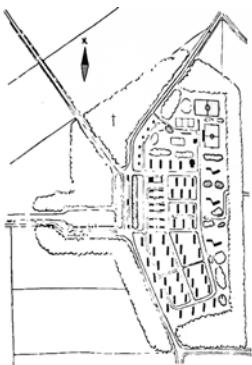


Fig. 9. Sketch design by members of De 8 for the urban planning of Nagele from *Forum*, no. 617

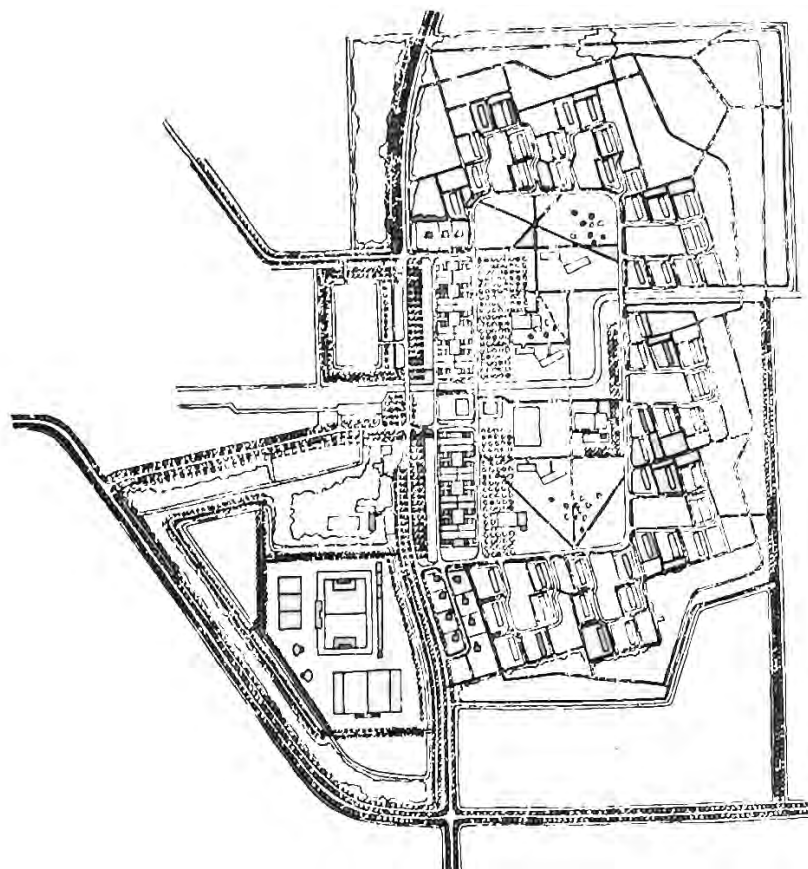


Fig. 10. Sketch design for Nagele by M. Kamerling, 1952

6 Louwerson, 1982. p.75.

7 Louwerson, 1982. p.76.

At the end of 1952, the Zuiderzee directorate expands its requirements, thus, making considerable adjustments to the original plan necessary. The group De Opbouw from Rotterdam is invited to partake in further planning.⁸

This meant that the final designs are often fruit of a compromise.

One of such compromises is found when the collective opposes Van Eyck's demand for residential buildings along both sides of the ring road because it would break the functional separation between housing and the central public area. Boer uses the trick of double rows of trees to differentiate residential units from the central area as wished by the group while simultaneously creating the residential street atmosphere Van Eyck wished for.⁹

Other times contradictions are not solved, like in the case of the cemetery by Mien Ruys, placed on the edge of the village to respond to the principle that in the central area the buildings must stand as separate elements, without the disturbance of planted yards that would lead to isolated or semi-isolated spaces. However, this resolution contrasts with the view many held that "the cemetery belongs to the middle area as well; the link between life and death should not be hidden away".¹⁰

8 Louwense, 1982. p.78.

9 Louwense, 1982. p.79.

10 Louwense, 1982. p.78.

2.2 THE RELATIONSHIP WITH THE LANDSCAPE

Modernists such as Le Corbusier and even Mies van der Rohe understood landscape solely as "other", a wild, savage counterpart to rational buildings. However, post-war Dutch landscape architects like Mien Ruys view the landscape as a continuous element in cities rather than distinct or separate. She scorned the modernist position as belonging to those who visit nature from time to time, idealise it, but do not know it.¹¹

Wim Boer was also critical of how the propagation of the garden city idea meant the automatic identification of open space with green space, diluting the two in what is neither town nor landscape. Creating naturalistic gardens in urban settings was untruthful because it did not hold substantial value to the urban resident. The Dutch understanding of these spaces meant an utter rejection of naturalistic green devoid of regularity. Nature should only inspire the suitable forms complementary to urban life.¹²

Fig. 11. Resor House project, Jackson Hole, Wyoming, landscape view from living room, by L.M. van der Rohe 1937-38

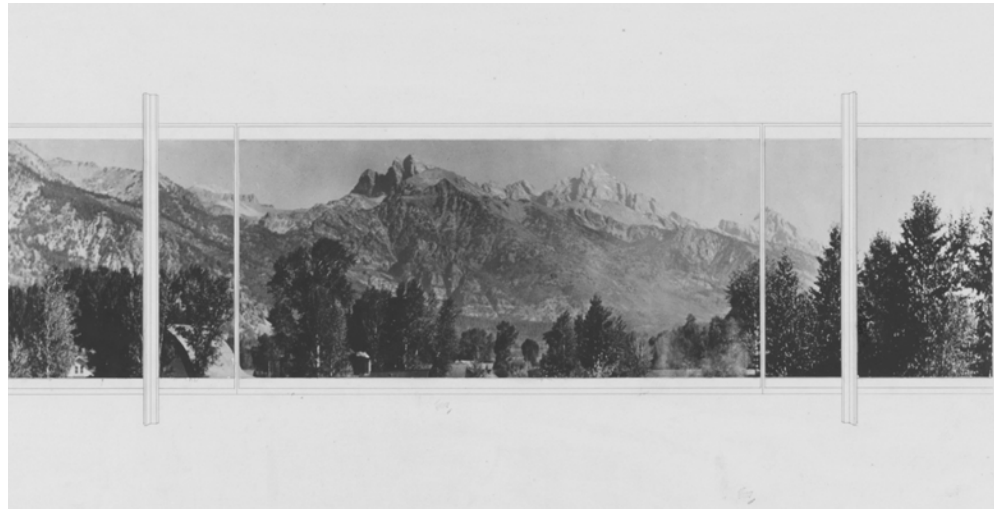


Fig. 12. Ville Radieuse by Le Corbusier, 1930



¹¹ Hellemond, 2021. p.5.

¹² Hellemond, 2021. p.5.

Wim Boer himself indicates that his treatment of space is inspired by the clear space of the Baroque, a well-arranged, open and free for every individual. Le Corbusier's choice in the Ville Radieuse to accompany the straightforward arrangement of the building blocks with a romantic forest park with winding paths is met with shock by Boer, who would have instead opted for coherence between powerful building blocks and strongly defined landscaping. The matter of coherence between landscape and architecture is possibly more apparent for Dutch architects simply because they must always relate to a high degree of control over nature and the artificiality of the Dutch landscape.¹³

Boer looks up to modernist Swiss landscape architect Gustav Amman (1885–1955), in whose designs green is not merely that of building material to bend to a preconceived spatial design, but rather the inherent beauty of the plant remains one of the essential starting points.¹⁴

He also appreciates the predominant spatial desire for form found in the architectural construction of Californian gardens of the time¹⁵, a similar structure is traceable in Aldo van Eyck's design for the school playground, particularly the usage of hard materials and simple free-standing porticoes.

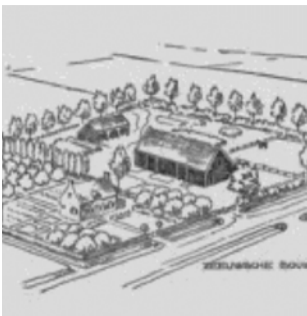


Fig. 13. Sketch of Dutch farmyard from *Nederlandse Boerenerven*, 1943

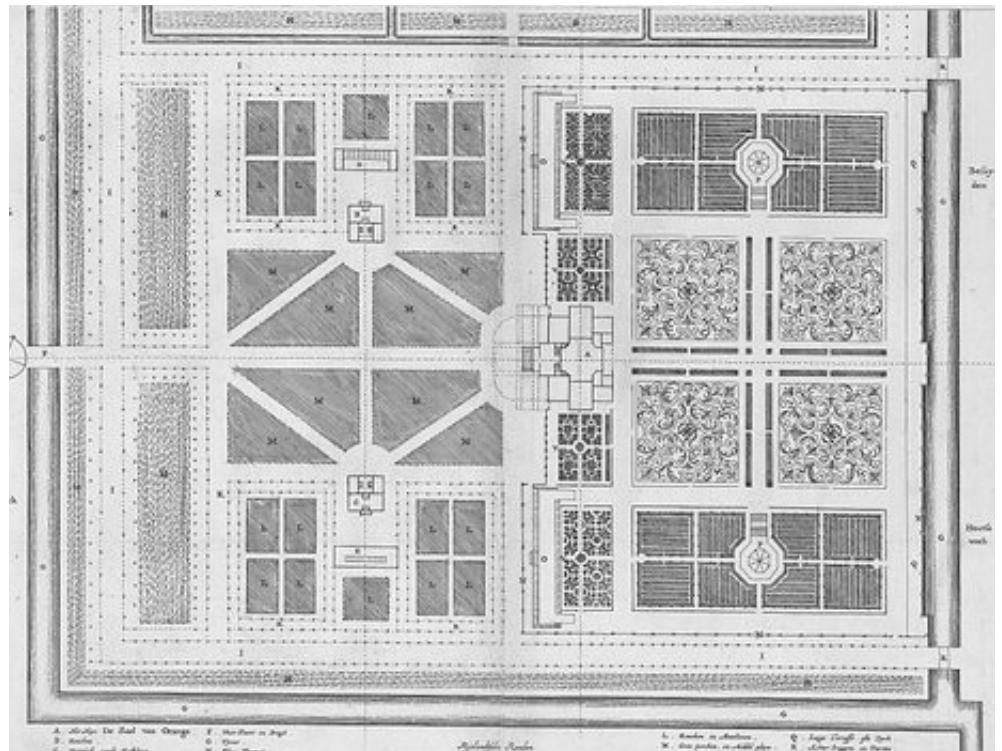


Fig. 14. Ground plan of Huis ten Bosch Palace and the surrounding estate, 1655

13 Louwerse, 1982. p.5.

14 Hellemond, 2021. p.6.

15 Louwerse, 1982. p.5.

3 WIM BOER'S MASTER PLAN

Son of a tree nurseryman, Wim Boer, is born in Boskoop in 1922. From 1937, he attends the local National Horticultural school for three years. His professor van Gelderen has a big influence on his interest for architecture and would later provide him with an internship at Jan Bijhouwer's office, who at the time is the only personality in the Netherlands pushing the development of landscape architecture as a science rather than the art of making cottage gardens for the wealthy.¹⁶

His views made him an active member of the Opbouw, where he benefits from the multidisciplinary and non-hierarchical collaboration within the collective, initially with modest contributions to the district of Pendrecht as a contribution to the CIAM congress in Hoddesdon in 1951 and working on the side of other more experienced architects like Bakema in the Prins Alexanderpolder, to soon bloom into a fully fledged landscape architect, who would start his own practice after winning the competition for a cemetery in Doorn in 1952, where all the distinctive elements of his planning and design approach are successfully showcased. In 1953, though still younger than most members of the group, he is passionately involved in the urban planning of Nagele to gain equal recognition as a landscape architect with respect to the other disciplines.¹⁷



Fig. 15. View of the cemetery in Doorn by W. Boer 1952-58

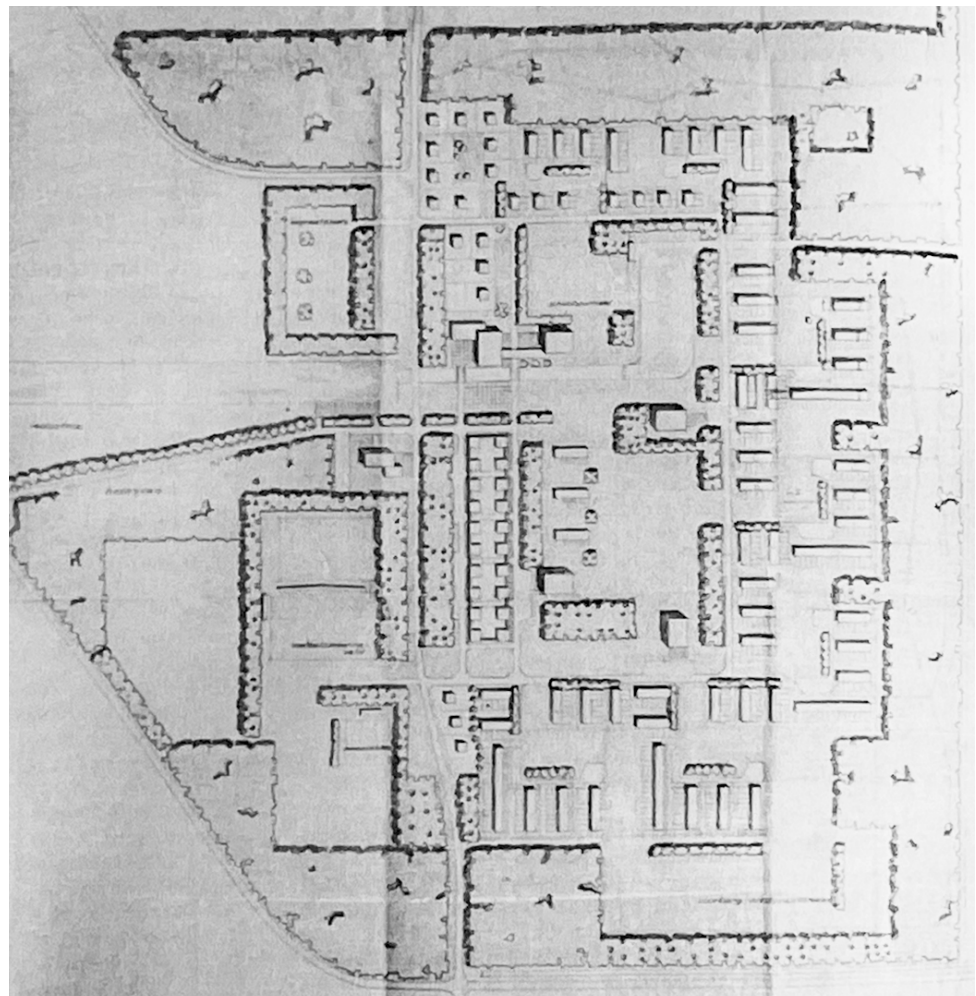


Fig. 16. Sketch of the village by W. Boer 1953

¹⁶ Louwse, 1982. p.3.

¹⁷ Louwse, 1982. p.5.

The development of consecutive sketches by Wim Boer proves the group's continuous multidisciplinary exchange about the relationship between urban design and landscape architecture. The early sketch (fig.16) aims to introduce a higher level of integration between buildings, free space and greenery and a gradual transition between the landscape and the village. But, it is met with criticism by the group. One of the most beautiful features is the widening of the bend of the polder canal (fig.17), which turns into a big reflective surface, and a fishing pond. It becomes an ice rink in winter.¹⁸ The handsome second sketch (fig.19) with the greenery shown in solid black helps convey the new level of definition reached since the previous one (fig.16) and comes very near to the design shown in the final plan (fig.22). Among the notable improvements, the polder canal Nagelertocht now penetrates the village right in the centre, halfway through the central area, or big green. This way, any functional imbalance in size differences between the northern and southern parts is dissolved. The window on the polder is maintained (fig.18).



Fig. 17. View on the bend of the Nagelertocht

The village perimeter is now simplified, thus, acquiring more definition. The narrowing of vegetation along the inner bends of the polder roads is no more. A rectangular group of trees, between the central area and the edge of the forest, screens the residential units from each other. The water canal finally comes into its own, acting both as a binder and element of transition between increasing separate parts of the village.¹⁹



Fig. 18. View of the polder beyond the windbreak across the Nagelertocht

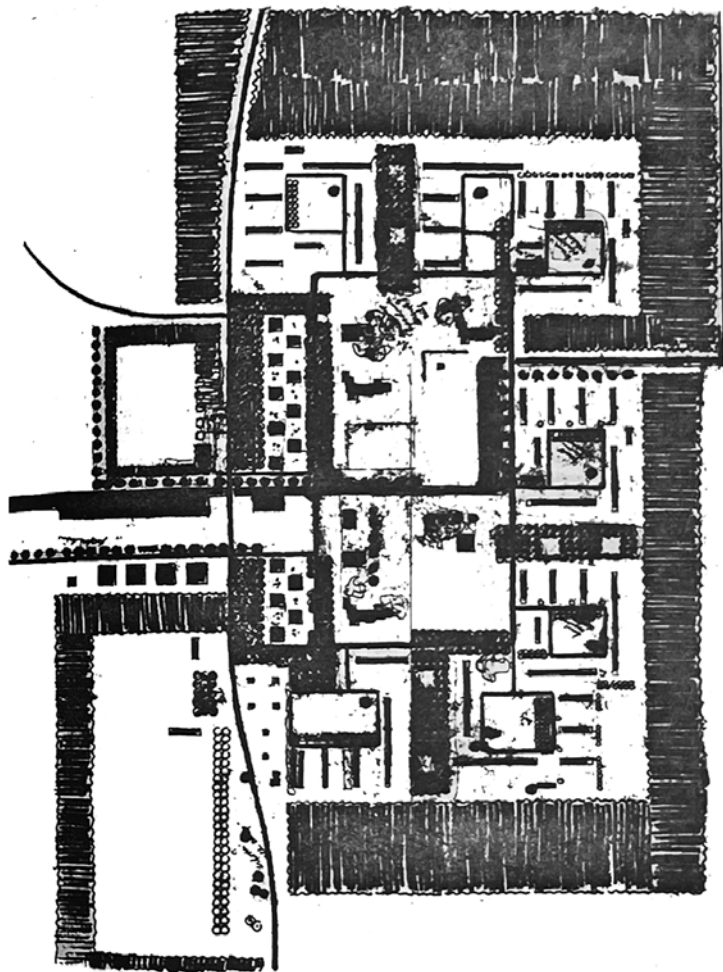


Fig. 19. Sketch of the village by W. Boer 1954, very close to the final design

¹⁸ Louwse, 1982. p.79..

¹⁹ Louwse, 1982. p.80.

Whenever the urban development plan sets out the functions, Wim Boer looks for integration and cohesion in the planting plan, as well as the meaning of each component and its coherence with the whole; its structure consistently wends from small to large and from the front garden to polder land in analogy with Aldo van Eyck's concept of "right size". The planting plan seeks integration and cohesion whenever the urban development plan sets the functions. Such fit is achieved with overlapping, by penetrating the wide strips in the middle area; through openness, by keeping a degree of continuity from the open polder to the middle area; and thirdly, via repetition, especially of proportions, by widening of the polder canal central area as to correspond in dimensions to the strip of ash, and transitions through the use of native species before the forest edge.

Loosely scattered groups of trees and freely placed buildings characterise the central area (fig.21). The relationship between the big green and residential units is mirrored in the intrusion of tightly planted trees.²⁰



Fig.20. Rows of trees along the ring road planted according to the plan

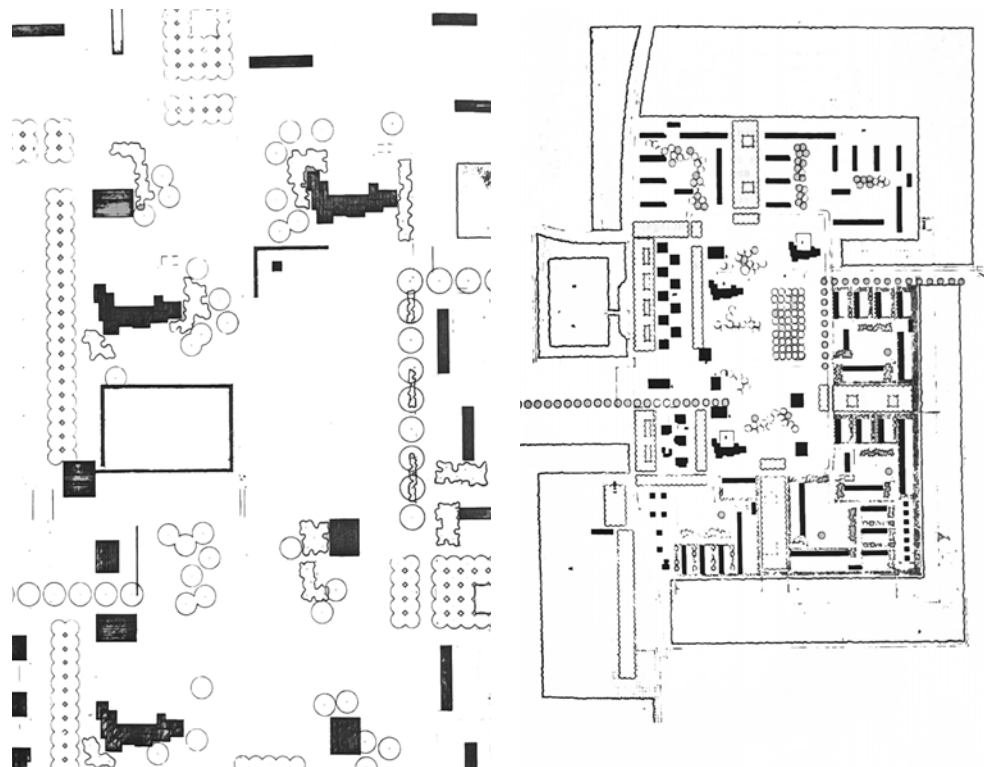


Fig. 21. Loosely scattered groups of trees and loosely placed buildings in the big green

Fig.22. Final plan by W.Boer, 1955

²⁰ Louwerse, 1982. p.82.

4 ALDO VAN EYCK'S SCHOOL PLAYGROUND

Van Eyck was born in the Netherlands in 1918 and raised in England, where he is imparted a thorough classical education. He then pursues his architectural studies at the ETH, where he is acquainted with the world of baroque architecture and is taught theory and the practice of axial composition by Alphonse Laverrière (fig.23). His teachings would prove a long-lasting asset in establishing "anti-classical, decentralising relationships".²¹



Fig. 23. Cemetery of Bois du Vaux by A. Laverrière in Lausanne, 1926

Aldo van Eyck takes part in creating the master plan of Nagele from the start and is later entrusted with the design of the three schools, a Protestant-Christian, a Roman Catholic and a larger state school located in the big green. Initially placed along one single street, the schools are scattered across the central area's plain.²² Aldo van Eyck employs a similar design feature found in the general master plan for Nagele, explicitly associating part and whole through structural analogy to arrive at a configuration for the school complex.²³

Much like the village is comprised of an open centre surrounded by a housing belt, which was, in turn, constituted of housing units, each consisting of dwellings grouped around a small centrifugal square (fig.24); likewise, each school revolves around a centrifugal playground.²⁴

The playground consists of a mineral forecourt defined by protective hedgerows, bringing to mind the village wooded windbreak on the north and the school building on the south. The circular cut-out on the northwest portion of the hedge accommodates the sandpit, where children would be completely cocooned by the surrounding bushes when knelt.



Fig. 24. General plan of Nagele, 1948-54

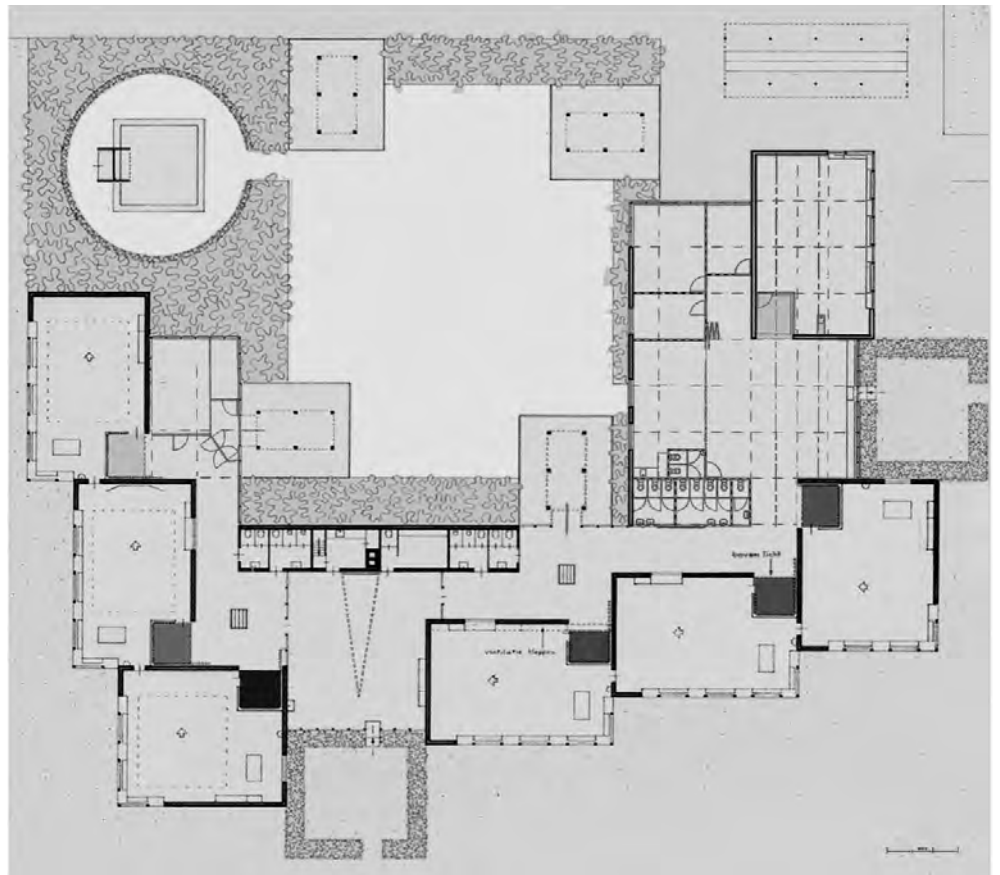


Fig. 25. Ground plan of the school by A. van Eyck, 1954-56

²¹ Strauven, 2007. p.2.

²² Louwse, 1982. p.82.

²³ Strauven, 2007. p.10.

²⁴ Nagele exhibition, 2013

5 MIEN RUYS' ECUMENIC CEMETERY

From 1947, as a member of de 8, Mien Ruys is involved in the design of Nagele in the early period, side by side with Bijhouwer, who is tasked with the general planning of the Noordoostpolder before the end of the war, and later with Wim Boer. She oversaw the whole village planting being an incredibly knowledgeable plantswoman as well as garden designer, with a precise understanding of the practical needs of plants.²⁸

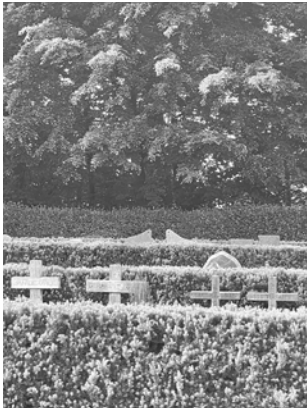


Fig. 28. Gravestones along the yew hedges in general area of the cemetery

The final design for the cemetery is primarily hers, and architect Enrico Hartsuyker joins her only in the initial design phase. The cemetery is located to the west of the village, along the main road and stands on calcareous, sandy clay with a lighter but poorly permeable subsoil half meter deep. The slightly elevated cemetery is surrounded by a 25 meters wide belt of native trees, which had already been laid, keeping the polder from view and the harsh wind. The program required that the Roman Catholic graves and the general ones be separate, respectively 1/3 and 2/3 of the total surface. Mien Ruys believed that all souls follow the same path to the afterlife, regardless of religion or class, and thus, concludes that the two compartments must be reached from a central point. The cemetery is non-hierarchical but reflects a perfectly egalitarian view of society, so the placement of graves doesn't follow any traditional hierarchy. The common access lies on 1/3 of the area.²⁹



Fig. 29. Enfilade of cherry trees on the lawn in the general area of the cemetery

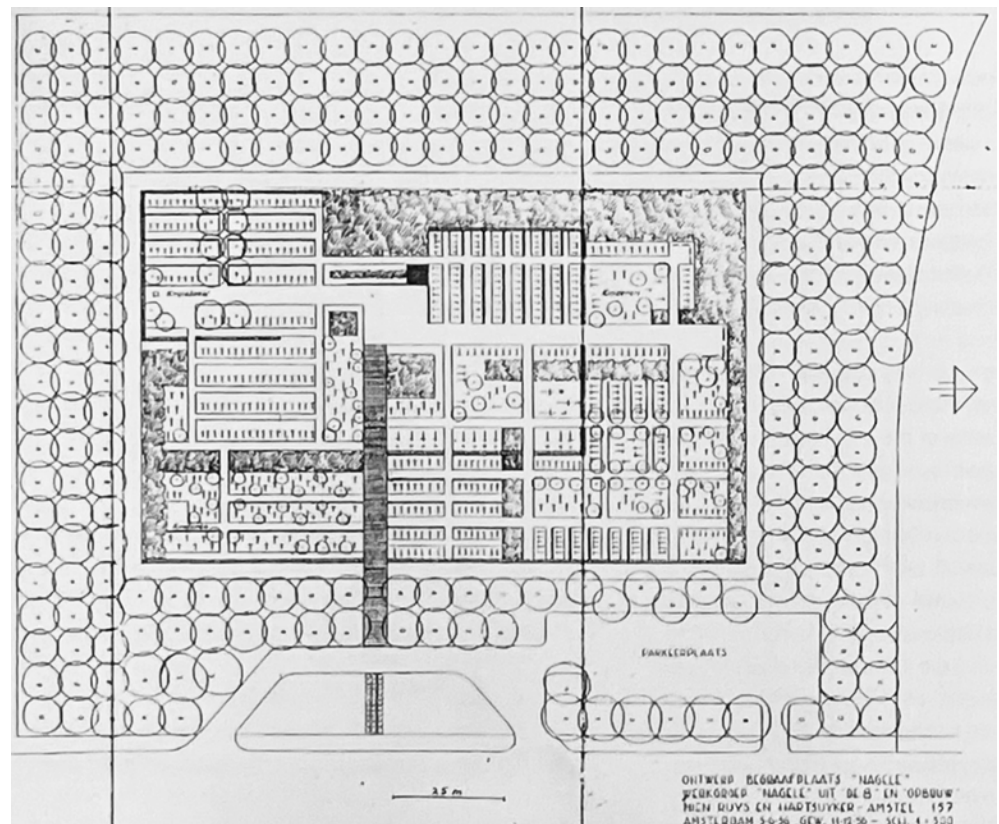


Fig. 30. Plan of the cemetery, 1956

28 Geertsema, 1982. p.34.

29 Geertsema, 1982. p.35.

The layout is 1/3 part Roman Catholic and 2/3 part general.

Subsequently, three modules of 50 x 50 meters can be distinguished: one module for the catholic section, two overlapping modules for the general part, and three additional residual spaces. In the roman catholic section, the access rule falls outside the module, which is tripartite with hornbeam hedges to restore the balance. The entrance area is surrounded by a hedge of dog rose. The bigger space for the rest of the graves is likewise divided by hornbeam hedges with a unity view, and the entrance area, corresponding to one module, is surrounded by a yew hedge.³⁰

The entrance to the cemetery, sheltered by a berceau of hornbeam, was never realized until 2010 (fig.31). The berceau ends in a plain with a storage shed, connecting a covered bench (Harauijker design, also not executed). From this central plain, two paved axes have been laid that end in a village and unlock the general section. The rest of the paths in the cemetery are unpaved and part of the lawn. Each compartment is treated as a separate series, independent of the whole, with its specific planning of picturesquely placed trees and composition.³¹



Fig.31. View across the hornbeam berceau from the cemetery gate

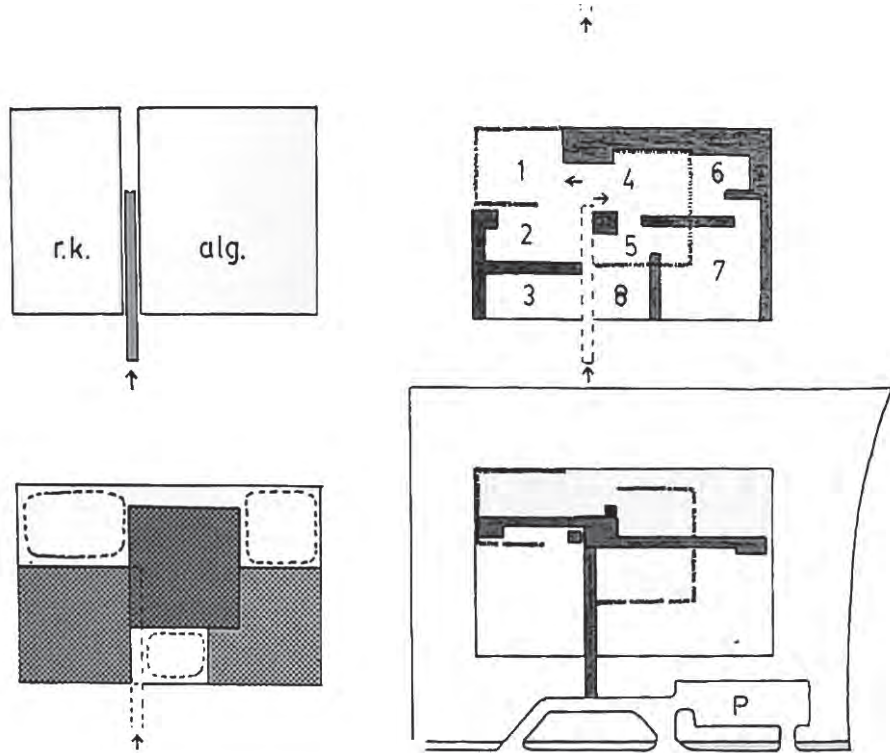


Fig.32. Schemes on the way the composition relates to the the 50 by 50 module

30 Geertsema, 1982. p.38.

31 Geertsema, 1982. p.37.

The composition is dictated by the rule of proportion, described by Ruys as a “series of harmonious measurements of the human scale, universally applicable to architecture and mechanical things” she denied any alleged agreement with Le Corbusier’s modulator calling the similarity “striking, but coincidental”. Many agreed that the root of this rule of proportions is more likely derived from De Stijl and rectangular Mondrian landscapes (fig.33).³²

The rectilinear floorplan breaks entirely from the until then prevalent romantic image of cemeteries with winding paths, where the width of the path is a direct indicator of the wealth of those buried along it, and harks back to the original outdoor cemeteries. Mien Ruys’s planting does not submit to mourning and is independent of the primary spatial layout and qualifies each part as a separate unit. The compositions made with the plants are very balanced, and one can assume that the spatial separation is subordinate to the picturesque use of the plants(fig.34).³³

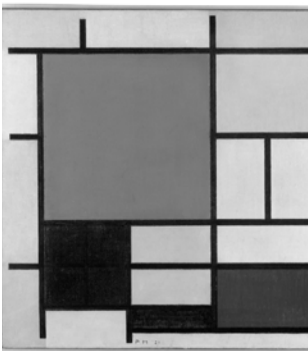


Fig. 33. Composition with Large Red Plane, Yellow, Black, Gray and Blue by P. Mondrian 1921

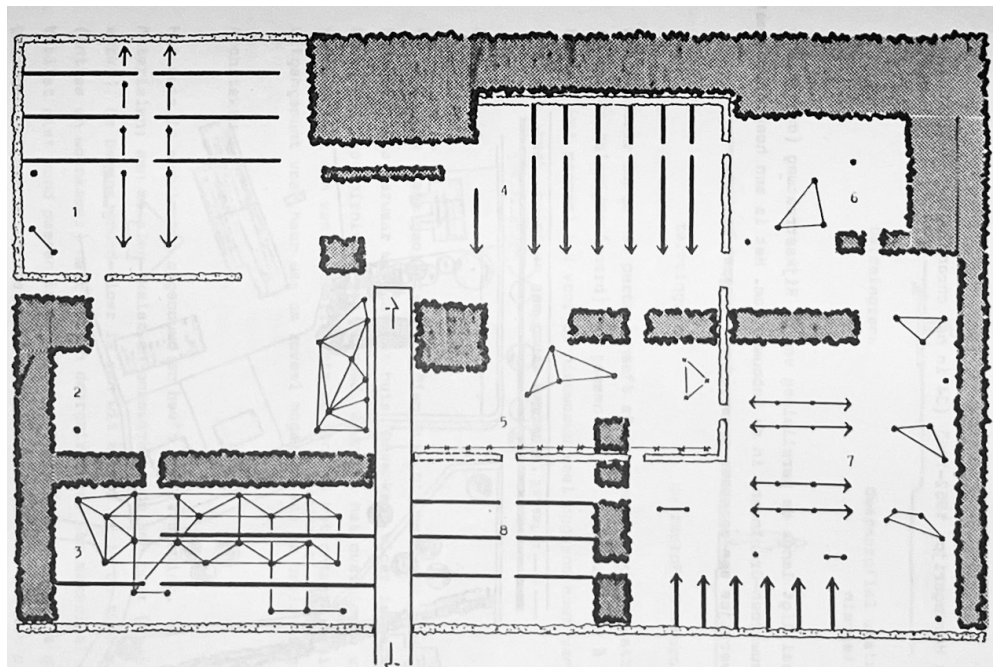


Fig. 34. Representation of connections between trees on the planting plant

³² Den Dulk, 2017. p.125.

³³ Geertsema, 1982. p.273.

6 CONCLUSION

Throughout this essay, I satisfied my personal curiosity to know more about the cultural landscapes of Wim Boer, Aldo van Eyck and Mien Ruys in Nagele and get in touch with the ideas that pushed towards their creation.

These works also contain bud concepts that will reach maturity only later in the architects' respective careers.

For this reason, I look at the process of their creation with the interest given to a fleeting, beautiful event. These designs are like late fossils describing a very limited snapshot of time, right after the war, that was parting ways with the old and transitioning to the new; they were the last to benefit from the enormous drive and the broad consensus characteristic of the Reconstruction.

Functionalism is brought into the landscape architecture realm for just about a second, before the advent of the 70s and ecology that forever changed how communities and architects understand their relationship with nature. It is also a turning point in societal changes, a big gap between the old and the new ways.

I ask myself if these works developed a new vision of the landscape or adapted outdoor spaces to the new vision of architecture?

It is hard to say. Between the two, architecture is almost always the force majeure in the matter of ideas. However, landscapes with solid bones are ever so often blessed with the breath of life and will soon have an independent existence. In Nagele, these three architects have created a place with solid bones that has just come into its own and now lives on continuing to charm locals and visitors alike.

7 SOURCES

Literature:

Hellemond, I. van (2021) Designing complete living environments: landscape in Dutch expansion districts in the 1950s and 1960s. *Landscape Research*. DOI: 10.1080/01426397.2021.1877265

Nijhuis, S. (2020) The Noordoostpolder: A Landscape Planning Perspective on the Preservation and Development of Twentieth-Century Polder Landscapes in the Netherlands. DOI: 10.1007/978-3-030-00268-8_11

Den Dulk, L. (2017) Mien Ruys: tuinarchitect 1904-1999 : de complete biografie : zoeken naar de heldere lijn: Tuinarchitect 1904-1999 zoeken naar de heldere lijn. Rotterdam: Uitgeverij de HEF publishers.

various collaborators (2013) The 2013 Nagele Exhibition. Aldo + Hannie van Eyck foundation, Loenen a/d Vecht, NL. <http://vaneyckfoundation.nl/2018/11/21/the-2013-nagele-exhibition/>

Andela, G. (2011) J.T.P. Bijhouwer: Grensverleggend landschapsarchitect. Rotterdam: Uitgeverij 010.

Strauven, Francis. (2007) Aldo van Eyck - Shaping the new reality. Montreal: Mellon Lecture at the CCA.

Hellemond, I. van (2006) Van groei naar ontwerp. Het beeld van de Nederlandse landschapsarchitectuur in de jaren zeventig. *Kunstlicht* 27.

Lörzing, J.A. (1992) Van Bosplan tot Floriade : Nederlandse park- en landschapsonwerpen in de twintigste eeuw. Rotterdam: Uitgeverij 010.

Geertsema, R. (1982) Mien Ruys, beschrijving en documentatie van haar beroepspraktijk : onderzoeksproject recente ontwikkelingen in de tuin- en landschapsarchitectuur. Wageningen: LH Wageningen.

Louwerse, D.C.(1982) Wim Boer: beschrijving en documentatie van zijn beroepspraktijk : beroepsproject recente ontwikkelingen in de tuin- en landschapsarchitectuur. Wageningen: LH Wageningen.

Eyck, A. van (1958) Drei Schulhäuser in Nagele, Nordost-Polder, Holland : Architekten Also van Eyck und H.P.D. van Ginkel. Bern: Werk 45.5.

Bijhouwer, J.T.P. (1947) De wijkgedachte : rede uitgesproken bij de aanvaarding van het ambt van hoogleeraar aan de Landbouwhoogeschool te Wageningen, op 18 Maart 1947. Wageningen: Veenman.

Geyl, W.F. (1946) Wij en de wijkgedachte. Utrecht: Uitgave V. en S.

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9 DECLARATION OF ORIGINALITY

I hereby confirm that I am the sole author of this written work:

The creation of post-war cultural landscapes in Nagele
Wim Boer, Aldo van Eyck, Mien Ruys

and that no help was provided from others sources as those allowed. All sections of the paper that use quotes or describe an argument or concept developed by an other author have been referenced, including all secondary literature used, to show that this material has been adopted to support my thesis.

Jacopo Ruggeri

Lucerne, 14.06.2022

UTOPIAN CITIES: BETWEEN LAND AND SEA

**IDEALISTIC VIEWS OF URBAN STRUCTURES
BY J. BAKEMA AND K. KIKUTAKE**

by Alina Shegay

ABSTRACT

In the uncertainty and search for the new meaning after the WWII, architects were looking for the new paradigm. Their fantasies were radical at times, which led to design of utopian futuristic cities. It opened a discussion about the alternative ways of living as well as the role of a human in this scope of things. Hopes for the coming future, resulted in the big post-war movements in the Netherlands and Japan – Structuralism and Metabolism. Architects of both sides wondered how to make cities more appropriate for people and responsive to the challenges. They are often put into the same category, or the second one is regarded as the eastern continuation of the first. However, this is not exactly so, if we look into the core of both. Various factors in culture, state of society and economy, and being by the opposite camps after the war affected the development of architecture in the 50s-60s. This paper investigates the expression of Structuralism and Metabolism in several aspects, that were common for both ideas but hint on fundamental differences in the case studies of J. Bakema and K. Kikutake. Their idealistic urban structures on the sea have been inspired by the global change, thus, aimed at being resilient in any condition.

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Utopian cities: between land and sea

Idealistic views of urban structures by J. Bakema
and K. Kikutake

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1 INTRODUCTION

The post-war period became a time for rebuilding the devastated cities, with a shift towards the new architectural approaches. It became a driving force for searching for the new ways in urban planning, as well as tackling relevant societal aspects. In this work, I would like to investigate, how the same global events influenced the architects' ideas from two different locations – the Netherlands and Japan.

50s and 60s have been the time for experiments and shifting the focus from the form and function towards the relationship between objects, between individuals. To my mind, it is the utopian projects that have never been (or intended to be) realized, represent the more refined ideas of specific movement. They carry the most provocative, brave expression that stimulates our imagination for what our cities could be like. Moreover, we can learn more about the context and time, which the imaginary cities represent. In retrospect, it is controversial to say, whether or not certain ideas have been successful. Like Herman Hertzberger said, 'building is subject to change'¹, and the change can be measured in various subjective ways.



Abb. 1. Ministry of Social Welfare and Employment, The Hague. 1987-90

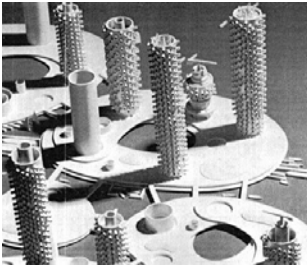


Abb. 2. Marine City Megastructure. Kiyonori Kikutake.

During research, I have noticed many similarities between the major movements of the Dutch Structuralism and the Japanese Metabolism. In various sources they are put into the same category or the latter one is represented as an extension of the first. However, the roots and initial ideas behind them might not be the same, as it seems from the first glance. Reasons may be hidden in the core of ideas – the cultural, socio-economic backgrounds. Not to mention the state, in which the Netherlands and Japan have been after the war. Those aspects inevitably influenced the aims and focuses for further city planning.

Such factors, as *human in the center of urban development* or freedom of individual expression in a community have been clearly expressed and always mentioned by Jaap Bakema². But was it the same for the forerunners of Metabolism Kenzo Tange and Kiyonori Kikutake? Or was the structure by itself more important than the individual in this system? Those questions and the hypothesis that Structuralism and Metabolism had different focuses sparked my interest for a more thorough investigation.

1 Lecture by Herman Hertzberger at the Centre for Fine Arts, Brussels, 06.10.2016

2 Dirk van den Heuvel (ed.) *Jaap Bakema and the open society*

1.1 METHOD

For better understanding of the context, I will in parallel analyze the works of Van Den Broek and Jaap Bakema, representing the Structuralists, together with the Metabolists – Kiyonori Kikutake and Kenzo Tange. To my mind, their speculative urban planning projects represent the clear ideas of those movements. In this work, I am investigating Plan Pampus in Amsterdam by J. Bakema, which went off the competition brief grid. Another example would be Marine City project by K. Kikutake, which was presented by the forerunner of the Metabolists movement at the CIAM'59 conference. In these projects, I would like to study how both movements have been realized in terms of the following notions: Open – Close structures, Individual – Collective. Those ideas had similarities, based on the different cultural backgrounds, whereas in Structuralism the emphasis is on the community and interaction, coexistence, the Metabolism suggests the adaptability to any circumstances, not highlighting the individual as a part of a bigger collective.

My approach is based on covering the backgrounds of each movement, the cultural and historical investigation of both with the briefly illustrated examples. Since Structuralism and Metabolism had intersecting values, I will focus on several of them, analyzing the proposed examples based on the qualities mentioned earlier. In the end, I would like to show how ideas were realized in two different locations, with different socio-economic contexts.

2 HISTORIC BACKGROUND

After the end of the WWII, the Netherlands and Japan appeared to be on the opposite sides of the 'border'. Because of the shift from the functionalist understanding of architecture, which the pre-war CIAM had been criticized for, the Dutch architects were trying to implement more of the social element into design. Jaap Bakema was strongly manifesting for the democratization of the urban environment, without which the role of the architect as a medium between society

Abb. 3. "After total war can come total living." 1943.

Abb. 4. Aerial view of Asakusa, heavily damaged by the World War II U.S. firebombing raids of Tokyo in March 1945.



and creating inclusivity for all, would be lost. Unlike the Dutch people, the Japanese people suffered from the unprecedented weapon, which has impacted a lot the societal perception of the coming change. Kenzo Tange, the founder of the Metabolist movement, was describing the influence of the war time on him, as he loses both parents by the end of it. He claims that "the flair of economic success had disappeared in Tokyo"³, people wanted change, and thus the heated debates about the future of Japan escalated.

3 Kenzo Tange 1946-1969: Architektur und Städtebau. Pg. 15.

2.1 SAME DRIVER OF CHANGE - DIFFERENT INTERPRETATION

When I was reading the ideas of Jaap Bakema and Kenzo Tange in parallel, the search for the alternative ways for architectural expressions were common for both. However, while both architects were involved in reconstructing the devastated cities – Rotterdam and Hiroshima respectively, their core visions diverged from trying to put everything into the same structured framework. Bakema was one of the CIAM members, who rebelled from the pre-war functionalist ideas, seeing them as not as effective, as they were meant to be. Architects tried to make the spaces more relevant to human needs, as the famous statement by Aldo van Eyck goes: «Whatever Space and Time mean, Place and Occasion mean more»⁴. Dutch Structuralism emphasized a lot the consideration of the individual role and impact on the spatial quality. The rise of the Welfare state and growth of inclusivity in the cities, leaning towards the humanitarian approach was possible in the Netherlands at the time.

At the same time, during 50s, the situation in the Japanese cities appeared to be different, as the occupation by the allied forces, led by the US⁵, was a deciding power in many aspects. Keeping the Emperor in place, the newly established foreign power had an impact on the social and economic condition, as well as on the ability to make decisions by the people themselves. This period was followed by the Japanese Economic Miracle⁶ from the 1946-1954, which marked the production boom and prosperity. When discovering this historic background, I regarded it as a crucial part in the development of architecture and the potential reasons why Metabolism and Structuralism tackled different specifics.



Abb. 5. Amsterdam Orphanage.
Aldo van Eyck. 1960.



Abb. 6. Tokyo 1964 "Suiyabashi
Crossing".

Abb. 7. Congres Team 10 in Otterlo
- Team 10 Meeting in Otterlo. 1959.



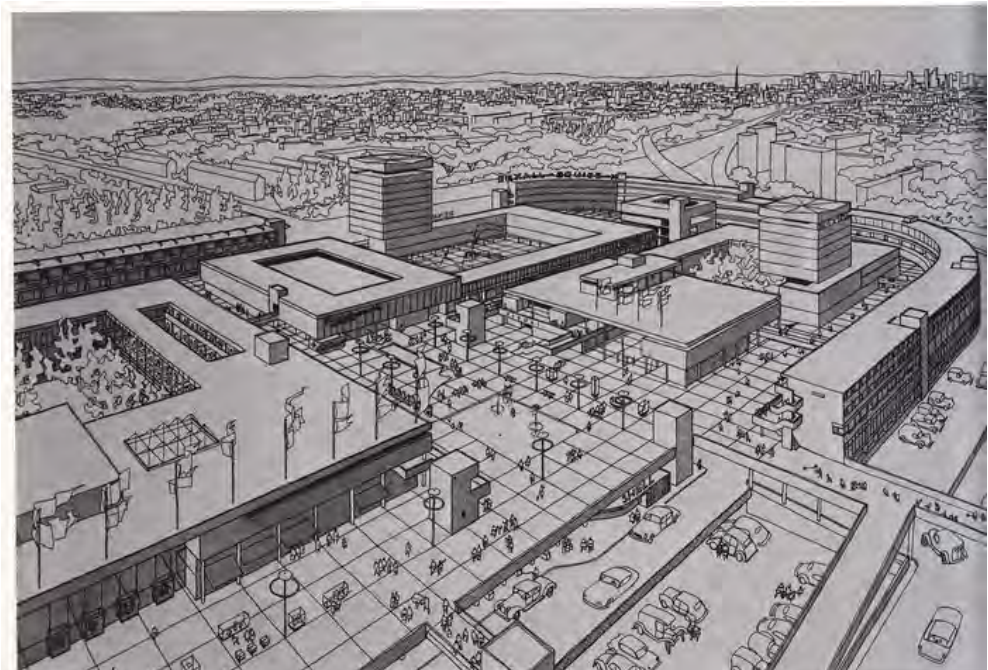
- 4 Aldo Van Eyck in *Beyond Visibility*. 1962. Pg. 20-23.
- 5 A military occupation of Japan in the years immediately following Japan's defeat in World War II. 1945-1954.
- 6 Japan's record period of economic growth between the post-World War II era to the end of the Cold War.

2.2 STRUCTURALISM MOVEMENT

The CIAM became a starting point for the movement of Structuralism after the WWII, giving the 'stimulation' to the new generation of architects. The former methods and clear distribution of space, done by Rationalists, did not seem effective anymore. "Form Follows Function" pattern was considered too narrow minded and limiting, thus the new visions emerged. In the transition times from the foundation of Team 10 in 1953, and the collapse of CIAM in 1959, the Structuralism movement manifested itself in different forms by such forerunners, as Hermann Herzberger, Aldo van Eyck, Jacob Bakema and Van den Broek, etc.

*"Structuralism itself implies a reordering of the conventional structuring systems of the human society; all the elements of the human culture are to be understood in terms of their relationship to a larger, overarching system or structure, in the hope of unifying the human sciences"*⁷

Abb. 8. Frankfurt am Main, Germany. Competition for Nordweststadt. 1961.



In this paradigm, we see a complete refocusing from the objects on the relationships between them⁸, from function to a greater structure, which emphasizes the community engagement. Following that logic, we can outline the key elements of Structuralism, combined as a medium of architecture thought in that time:

- social cohesion and interactions
- space that provides place and occasion for these experiences
- configuration with units of structure and grid
- anti-block movement
- units are a part of bigger structure
- each unit can be expressed individually
- 'notion of choice' in the realty as it were⁹
- freedom from political agenda
- consideration of in-between spaces, like staircases¹⁰

⁷ J. Serra. *Metabolism and the Structuralist Approach to Utopia*. (n.d.)

⁸ A. Lüchinger. *Strukturalismus in Architektur und Städtebau*. (1980). Pg. 40.

⁹ J. Bakema. *Architecture and Urbanism*. (1976). Pg. 25.

¹⁰ H. Hertzberger at lecture in Centre for Fine Arts, Brussels, (2016, October 6).

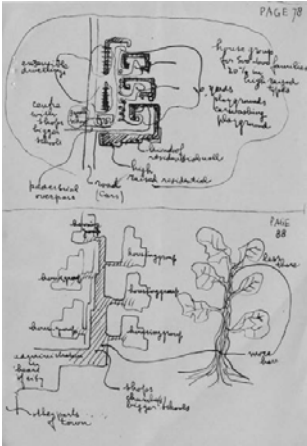


Abb. 9. Tree diagram from the famous 'Van Stoe tot Stad' lecture and publication, that explains the concept of visual groups clustered into an urban pattern.



Abb. 10. Compilation of sketches for the Dutch pavilion for the world expo of Osaka.

Abb. 11. Staircase at the Aula of TU Delft. 1961-1964.

Abb. 12. Aula of TU Delft. Floor Plan.

Architects in that movement were designing the spaces in a way that they seemed undone or would open the ground for imagination. So that the users themselves could have a more free interpretation on how to add on to it or utilize it in different ways. Structuralism aimed at providing the notion of choice to the inhabitants, where they could interact and express their visions.

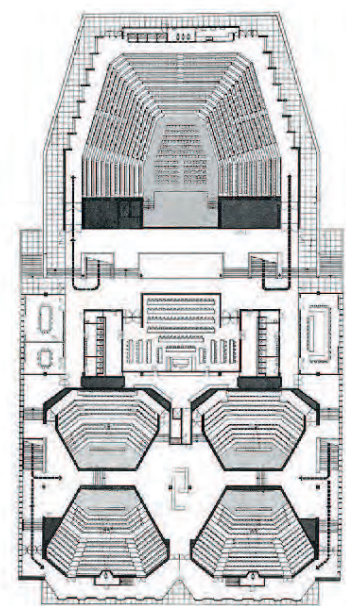
The given framework was meant to grow and expand with time, depending on the desires of people (relation to the idea of Bakema 'anything that human desires'. Everyone was supposed to be a part of this new paradigm, playing an important role as a society unit¹¹. Thus, inclusivity of spaces was a crucial aspect, which relied on the active participation of each individual – outcome of the Welfare state development¹².

Openness played a significant role in the Structuralist buildings, which manifested in such spaces as balconies, terraces, wide stairways, which not only served as routes for remote but the areas for interaction. Often such inclusions looked like pavilions, having profound horizontal axis. Good example of this would be Aula of TU Delft, designed by Van den Broek and Bakema as the university Conference hall.

To visualize the socializing spaces, architects proposed the breaking of levels (Fig.11). Functional distribution of spaces is structured in a way that areas are not evenly divided but intersect, creating the in-between effect for people to socialize (Fig.12).

Social cohesion and interaction within the small blocks (anti-block movement) prevailed a lot in the whole movement. Each unit in this framework could be a result of individual self-expression and was meant to evolve, change to get better, maybe be demolished but never stay as it was initially.

*"In the future, will there be a built environment, bringing the same rights for every man to be different (variation in architecture) or will there only be different rights for everyone to be the same (monotony in architecture)?"*¹³ – Jürgens Joedicke.



11 J. Bakema. *The aspirations of an open society, then and now.* (2018). Pg. 131.

12 D. van den Heuvel. *On Dutch Structuralism and Welfare State Planning.* (n.d.).

13 J. Joedicke. *Architecture – Urbanism.* (1976). Pg. 76.

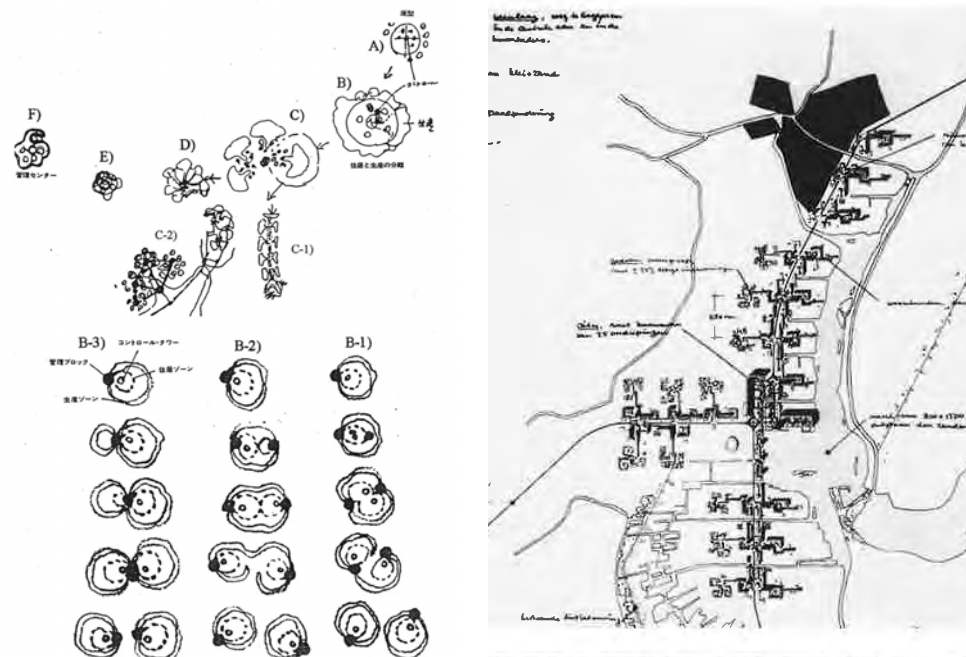
2.3 METABOLISM MOVEMENT

Meanwhile, the Japanese Metabolists stood for the architecture that acts not as a 'catalyst' but as a 'consequence' of the societal change. This thinking was not only rooted in the outcomes of war for Japan but also in its' cultural, mental features.¹⁴ Nevertheless, unlike the Netherlands, it was not completely free but under a major influence and control of the US, which restrained it from fully defining the future course of development. Perhaps, this condition had led to regarding architecture as an 'organic response' to any change (Fig.14). For Metabolists, the ideas were closely related to the ones of Structuralists – the objects were also meant to be adaptable, with the overarching structures, allowing a natural growth of different parts of the city at their own pace. Unlike the 'bottom-up' model of societal change and self-expression through architecture, which were stimulated in the democratic Dutch society (Fig.15), the Japanese architects had a more dramatic outlook on this change. They regarded urban development in the adaptable, integrated structure that was responsive to any conditions as they were.

“Metabolism is the name of the group, in which each member proposes further designs of our coming world through his concrete designs and illustrations. We regard human society as a vital process - a continuous development from atom to nebula. The reason why we use such a biological word, metabolism, is that we believe design and technology should be a denotation of human society. We are not going to accept metabolism as a natural process, but try to encourage active metabolic development of our society through our proposals.” – Manifesto¹⁵

Abb. 13. Marine City metabolic concept. K. Kikutake.

Abb. 14. Plan Pampus urban structure. J. Bakema.



This architecture was a reminiscence of the spaceships, not tied to any site in a local context. Cherie Wendelken in the book 'Putting Metabolism Back in Place' writes of this style as "...an effort to address fundamental questions about what it meant to be Japanese in the post-war world. It was a form of a cultural nihilism that developed out of the trauma of defeat in war followed by occupation".¹⁶

14 Metabolism Past and Future, Images from a Utopian Past. (2019, May 7).

15 "Metabolism 1960". Evolutionary Urbanism. (1960).

16 C. Wendelken. *Putting Metabolism Back in Place*. (n.d.). Pg. 280.

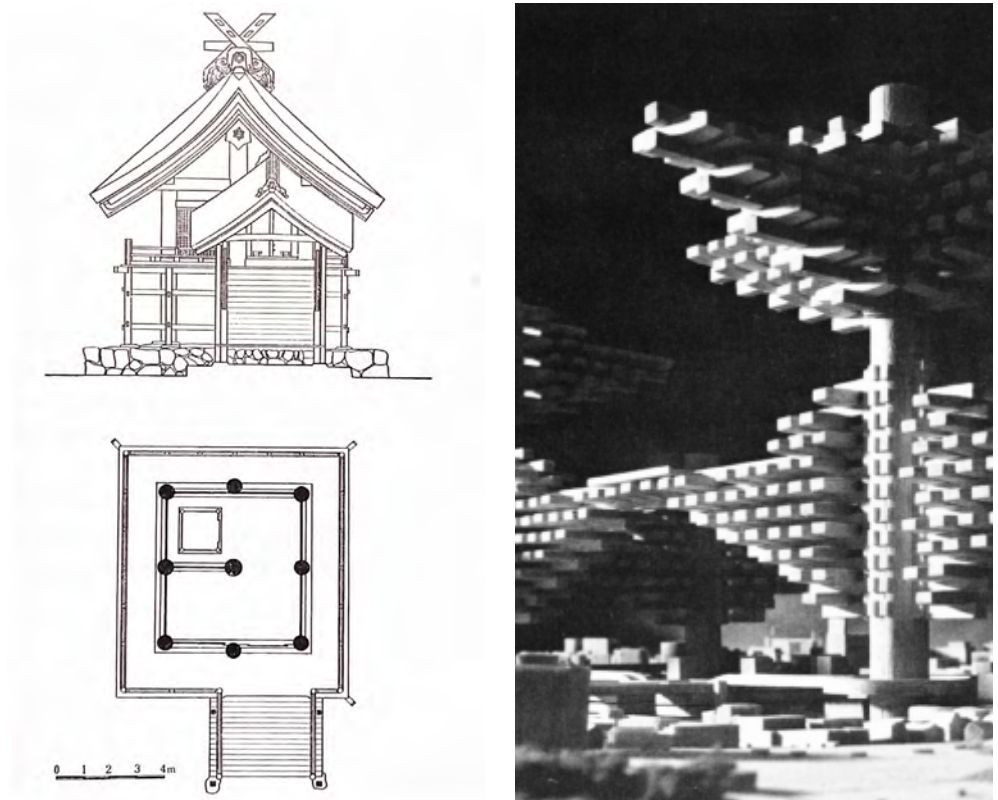
Formulations like this, already not on some fundamental differences in development of Metabolism that puts it into another category from the Structuralism movement. In the first case, one can notice a hint of fatalism, while in the second one there is a hope for a better future, where no one is left behind.

Metabolism is often described as a creation of the “Oriental mind”, referring back to the tradition of building and demolishing the ancient Shinto Shrines¹⁷. It gives the architects of this movement a different perception of 'nostalgia or sentimentality'. They strived for proclaiming its' originality, stating it beyond the derivative of Western modernism, and formulated the key points of Metabolism:

- Organic urban design and reconstruction based on growth and change)
- Recycling
- Prefabrication of modules (Fig. 20)
- Expansion and contraction based on need
- Megastructure infrastructure: core elements in the center (Fig.17)
- Attachable - detachable substructure
- Replaceable units – cells or pods

Abb. 15. Izumo Shrine. Elevation and plan.

Abb. 16. “Clusters in the Sky” by Arata Isozaki (1962). Via NCSU.



This architecture was meant to ‘evolve with the society, in sync with all the challenges of contemporary era’, as expressed by Kiyonori Kikutake. Just as an organic living cell, building was supposed to change with time, be replaced, and even demolished, when it is no longer relevant to the time. Principles for structural formations included the spine-like core structure with the prefabricated, added-on capsules or blocks, removable when the life-span was over. Till now, one of the few operating Metabolist buildings is the Shizuoka Press & Broadcasting Center (1967, Kenzo Tange), which, however, never expanded out of the ‘plugged-in’ modules (Fig. 17).

17 K. Kikutake. *Between Land and Sea*. (2016). Pg. 101.

The structure of a capsule implied the closed-off construction, where no balconies, stairs and terraces were seemingly possible to realize. Thus, I started wondering, if the communication and interaction were intended to be an integral part of this movement. Despite similarity in the principle of growth and change for both Metabolism and Structuralism, I found the human role and place in the community to be fundamentally different. In the next two projects I will try to analyse, if the impact of one individual were relevant for the development of Metabolism, as it was for Structuralism, or if an individual was just a part of the bigger framework evolution, like a mechanism.

Abb. 17. Shizuoka Press and Broadcasting Center. Kenzo Tange

Abb. 18. Shizuoka Press and Broadcasting Center. Section. 1967.

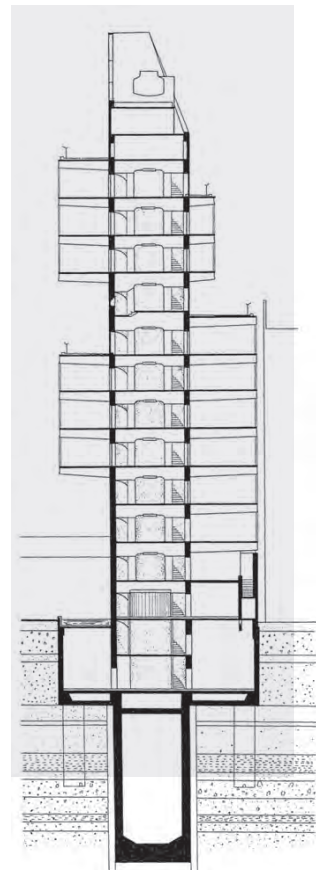
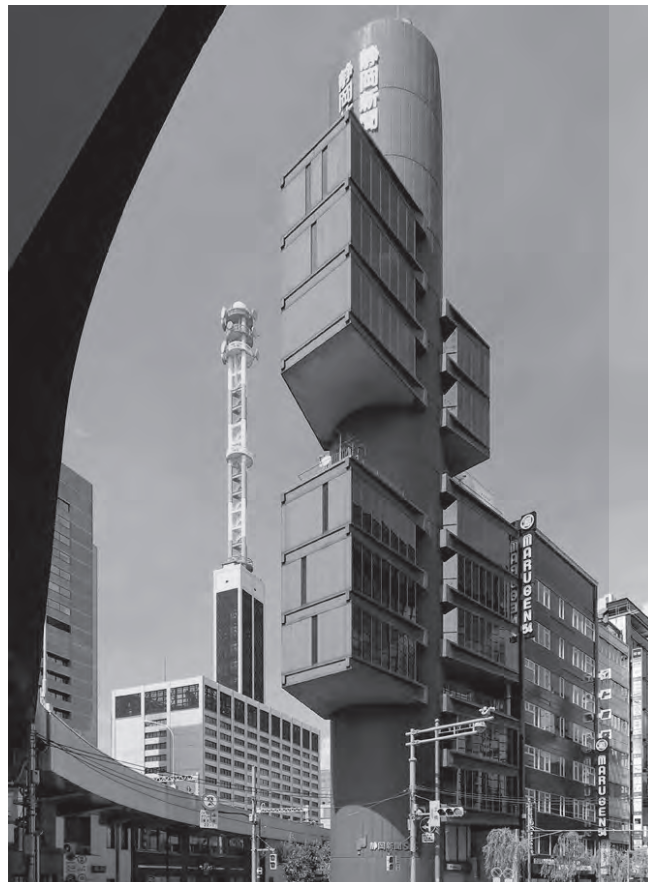


Abb. 19. The Yamanashi Press and Broadcaster Centre. Kenzo Tange. 1961-1965.

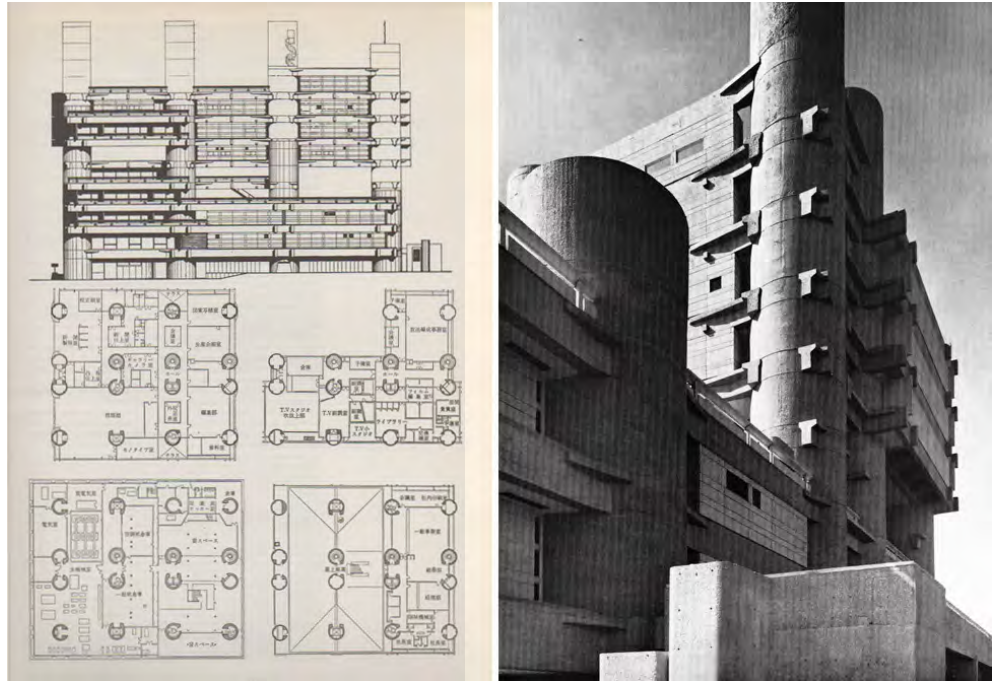
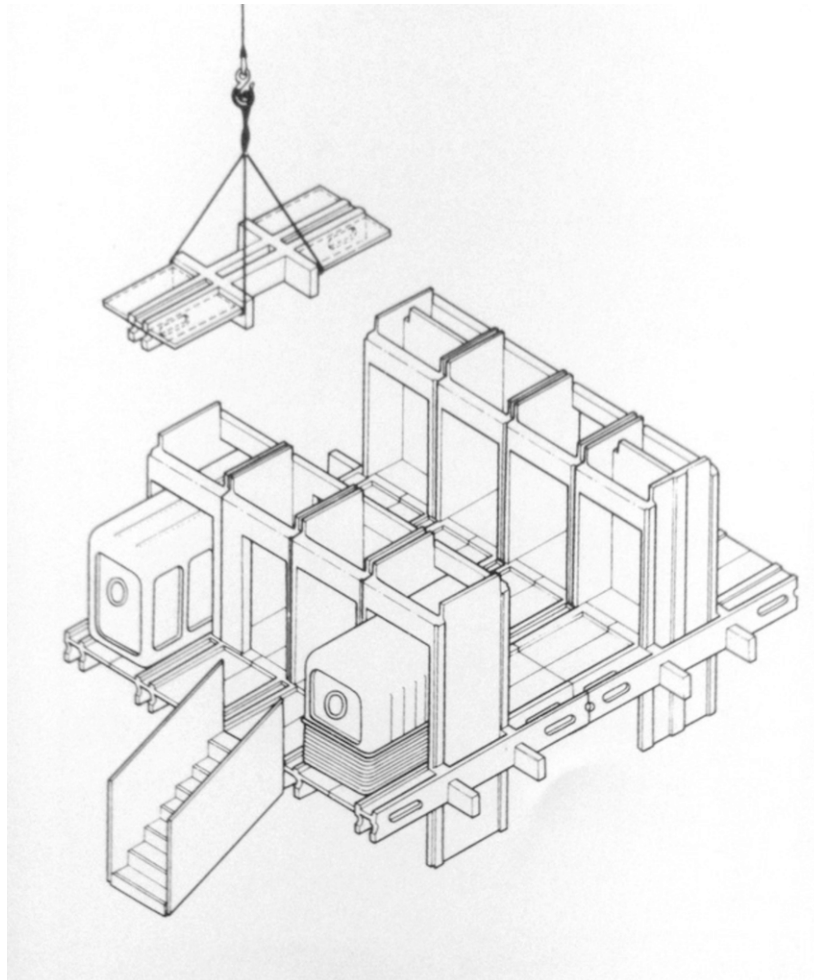


Abb. 20. Kisho Kurokawa Box type-mass produced apartments project. 1962.



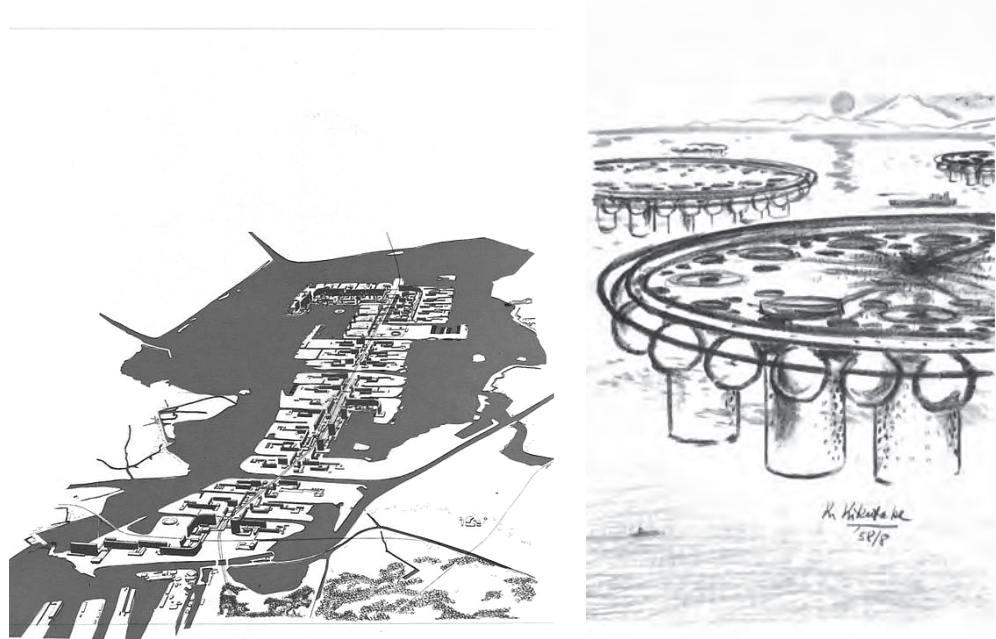
3 UTOPIAN URBAN PLANNING IDEAS

In the 50s-60s, the architects from two sides of the world were looking for the similar inspiration: urban environment that is subject to change. Architecture that was meant to be reshape, evolve and provide the better future for the people. An in this part, societal state, interaction and impact of an individual differ. From the historic background of the Netherlands and Japan I understood that the cultural specifics had a big impact on the movements. While the Dutch society was implementing policies for the prosperity of the welfare, the Japanese were working on the technological advancement, which led them to the economic glory in the decade following the war.

Jaap Bakema, as a strong advocate for democratic cities and significant figure of

Abb.21. Pampus Extension Plan, Amsterdam, 1964, collectie Het Nieuwe Instituut, BROX 1411t5-2, Van den Broek en Bakema Architects

Abb.22. Sketch of Marine City by Kiyonori Kikutake. 1958.



Team X represents Structuralism in my research. Together with him, I am investigating the work of Kiyonori Kikutake, who represented the Metabolists development together with Kenzo Tange. Both architects expressed their ideas of the futuristic cities by the utopian projects on the sea. To my mind, they best express the crucial aspects of both movements in the late 50s- 60s.

3.1 VAN DEN BROEK AND JAAP BAKEMA / PLAN PAMPUS | 1964-1965

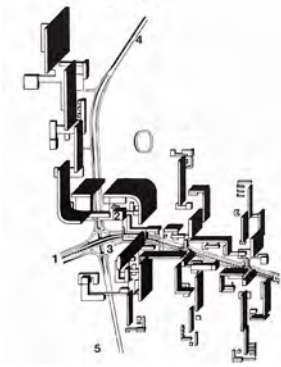


Abb. 23. Island connection to the city center. 55000 inhabitants.

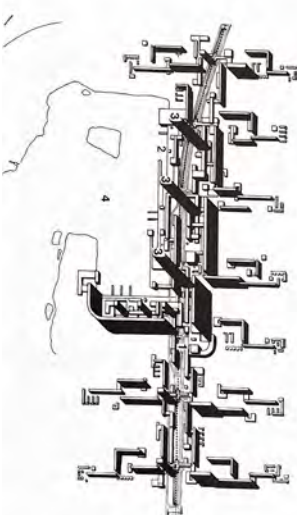


Abb. 24. Second Island. 65000 inhabitants.

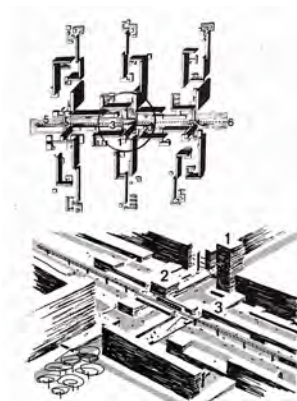


Abb. 25. Third Island. 30000 inhabitants. Local Center with a monorail shop.

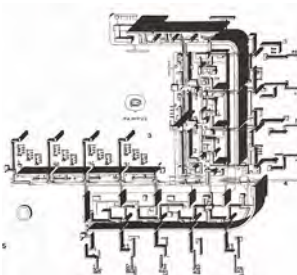


Abb. 26. City Pampus with metropolitan business and culture center. 200000 inhabitants.

Plan Pampus was a proposal for the Amsterdam city extension for the 350000 inhabitants. It was meant to connect the old city with the new polders, where the future towns of Almere and Lelystad were to be built. The project was a provocation to the client, having a criticism of the previous 'concentric' city developments – the linear structure supposed to grow in the star shaped way. Plan Pampus was oriented towards the total urbanization of the Netherlands, and dealt with the housing unit groupings on the islands, connected with the monorail¹⁸. Virtually, this linear grid system with the growing 'branches' of the streets with the multifunctional high-rise buildings, could be applied to any other city with the similar growth. In case of Amsterdam, the city has vast areas of water, which has been considered in the design process – the new city planning implied accommodation for 7000 yachts and the water sports site on the fourth island with City Pampus.

Overall structure included five separate islands, connected via the central line of monorail and the wide highways. Everything was designed in a way to provide people with variety of choice: from the type of transportation to take, to the kind of shops and leisure activities to pick from. Bakema's statement of this accessibility was "anything a human desires"¹⁹. Architect himself was fascinated by the development of private cars, which he embraced in this project as an important part of mobility. The layout of the city is made in layers, where people had different stages of space appropriation. The distances between the living blocks and the amenities have been calculated so that a person would not spend more than two to five minutes walking towards them.

The first island, closest to the old city of Amsterdam was accommodating 55000 inhabitants (Fig.23), followed by the second one with 65000 people (Fig.24), the third with 30000 and the local center with monorail stop (Fig.25), and the City Pampus itself with 200000 inhabitants and metropolitan business and culture center (Fig.26). New buildings contrasted with the typical Dutch city in density and heights. J. Bakema took inspiration from the American high-rise buildings, regarding them a progressive image of the future. One of the main arterials of the Pampus is shown in section (Fig.27), where the different levels of activities and access are represented. In the center there is always the arteria of movement, also layered by the public transportation above (monorail, buses, etc.) On the higher level – local centers, stores, main traffic nodes, all of this facilitation is placed on the wide prospects, squares and alleys. Along with function variability, such spaces provide people with interaction, communication opportunities. The horizontal axis of the entire layout is duplicated on the micro level, emphasizing the idea of the 'open society' and open structures – housing units too had spacious balconies, relation to the outdoors.

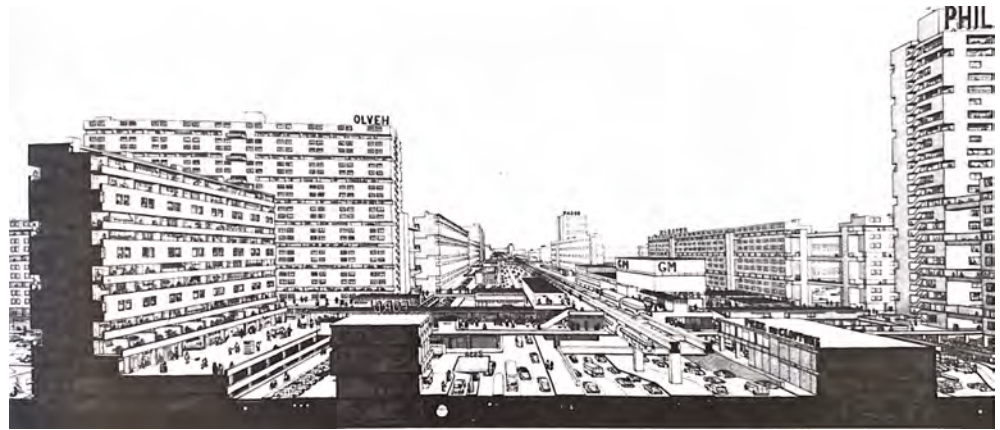
Jaap Bakema implemented the "core-wall"²⁰ principle in Plan Pampus project. The housing units, some of which are bent on the sides mark the transition towards the landscape polders or serve as part of mobility guidance. Those living blocks also host different functions, allowing freedom for any individual lifestyle. Core-wall structures additionally create the peripheral space, which could be used by

18 J. Joedicke. *Architecture – Urbanism*. (1976). Pg. 24.

19 *Bakema and the Open Society*. Pg.131.

20 J. Joedicke. *Architecture – Urbanism*. (1976). Pg. 26.

Abb.27. Main Aterial. Plan Pampus.1965.



the inhabitants of other polders, providing external engagement of people (Fig. 28). Construction system is based on standardized building elements, and every unit in this system was supposed to be built by a different architect each time. The design unit itself was not a block but a grouping of 3000 housing units, each of them with different function. They enclose the courtyards with churches, schools and shops, where the recreation is possible in open nature. In this paradigm, the housing unit was a “configuration that is justified by the opportunity for each occupant to experience diversity in forms of living daily”²¹.

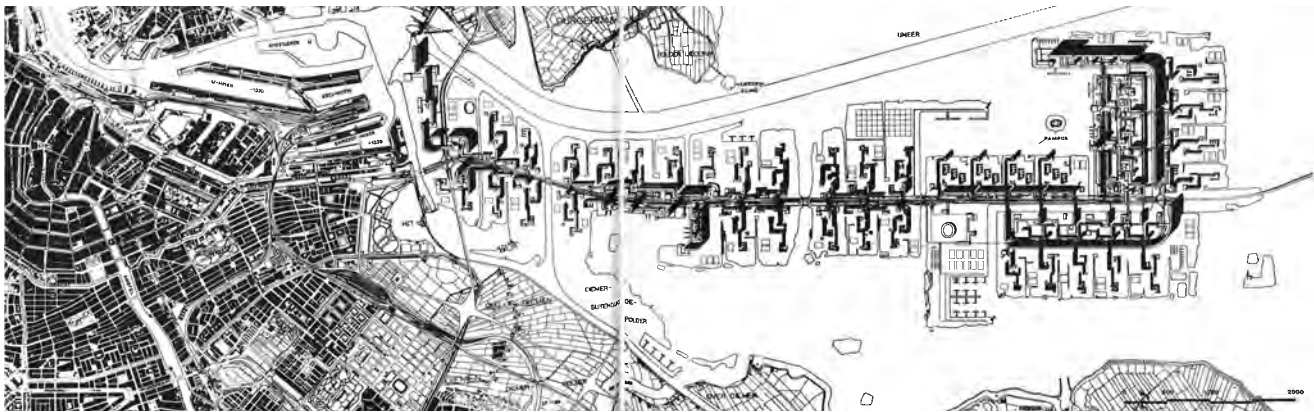


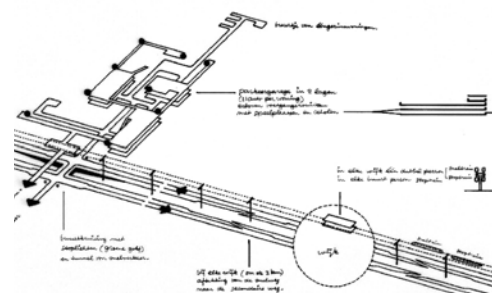
Abb.28. Plan Pampus. Core-wall structures.

“It is the task of the architect to have man experience natural space with the help of his buildings and at the same time to inform him of the possibilities that offer themselves to this end. Early visualization is an important prerequisite for user participation in the decision-making process. And participation itself is indispensable for shaping the built-up area of the year 2000”²² – J. B. Bakema.

Abb.29. Multi-layered city structure. Monorail and transition zones.



Abb.30. Axonometric view on the transportation knots.



Looking at the plans and drawings for Plan Pampus, as well as other projects of Van den Broek and Bakema, it is easy to grasp, how he wished to shape the urban scape of the future. One can imagine himself as an actor of the setting, embracing the possibilities and opportunities this new city provides (Fig.29).

21 Bakema and the Open Society. Pg.116.

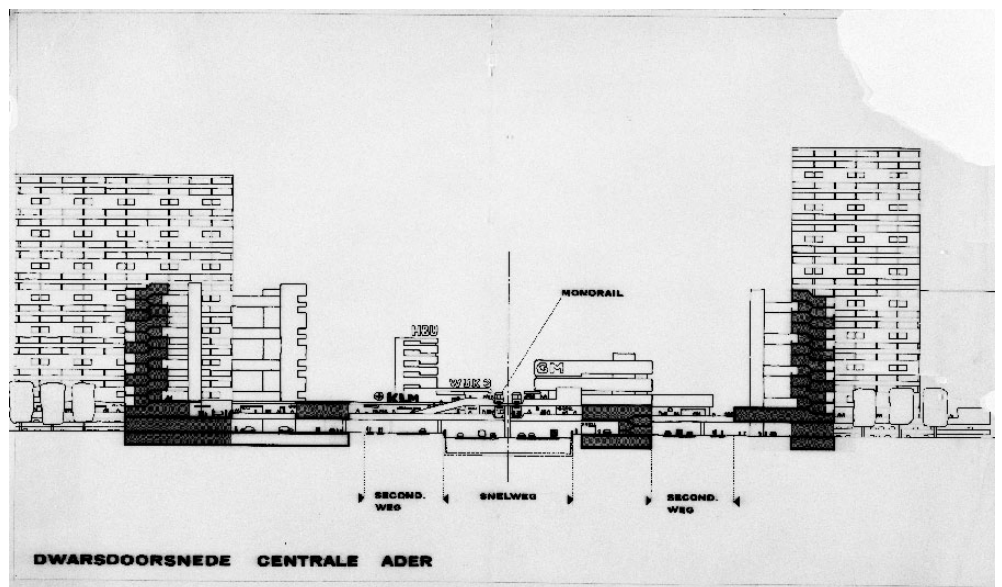
22 Van den Broek en Bakema. Plan Pampus. 1965. Pg. 28.

Abb. 31. Linear City. Contrast with the Old city of Amsterdam.



Bakema clearly puts individual in a role of decision maker, providing him and the community with space to express himself freely. He thought that with the given power of consciousness, everyone can play an active role, participate in the cities development for the better. Inclusivity and care for every individual in the open society advocated for the personal responsibility and action. Such self-awareness and consciousness deemed necessary to not leave anyone behind, as only together, having a fair level of responsibility, the society could impact the improvement of evolving cities for all.

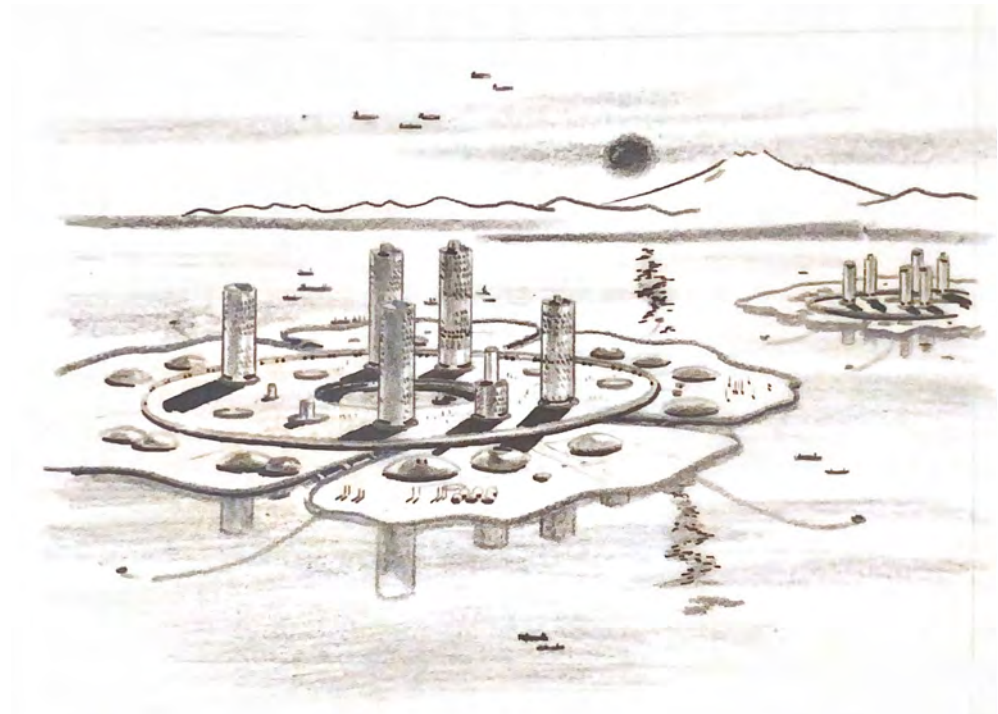
Abb. 32. Multifunctional distribution of Pampus. Residential core-wall buildings - Public spaces and amenities - Monorail.



3.2 KIYONORI KIKUTAKE / MARINE CITY | 1960

From a first glance, we may find a lot of similarities between the Plan Pampus and Marine City. To this utopian idea Kikutake dedicated the whole series of research and projects, presented at Harvard University as “Tectonic Visions between Land and Sea”. His visions on the possibility to live on the sea emerged during the rapid economic growth in Japan, after the devastation of WWII. Kikutake himself was affected by the circumstances, as his family loses land-ownings, he also witnessed complete destruction of the bay areas for the heavy industries sake.

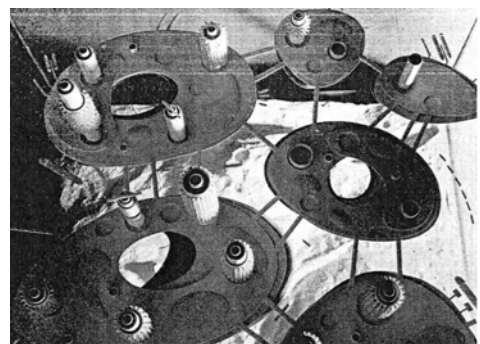
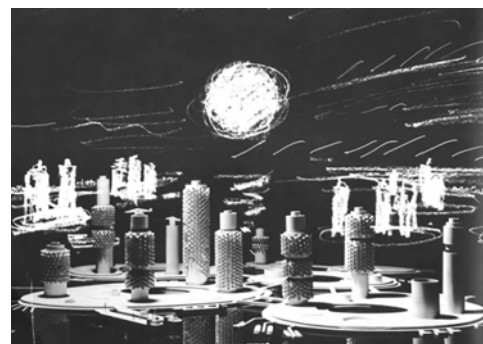
Abb. 33. Sketch of the Marine City as a part of the Ocean City research. 1963.



For him, ocean provided the vast uninhabited lands, which could potentially become the new home for those, who were tucked in the limited lands. Kiyonori viewed Ocean Urbanism (1956-1975) as a new opportunity for future discoveries, which was going hand in hand with the coming Japanese Economic Miracle²³. Rem Koolhaas related to this: “Through an alchemy of ambition and technology, Metabolism transforms what was previously felt as a limitation – Japan’s island-ness – into an opportunity”²⁴.

Abb. 34. Imaginary Marine City. 1963.

Abb. 35. Concept model of the Marine City. Residential towers.



Marine City (1960) was inspired by the first launch of Sputnik in 1957²⁵, which was a realization of the human dreams in modern science. Concept reminded of the

23 T. Oshima. *Between Land and Sea*. (2016), Pg.93.

24 Rem Koolhaas and Hans Ulrich Obrist, *Project Japan: Metabolism Talks*. London: Taschen, 2011. Pg. 354

25 The first artificial Earth satellite, which was launched into an elliptical low Earth orbit by the Soviet Union on 4 October 1957.

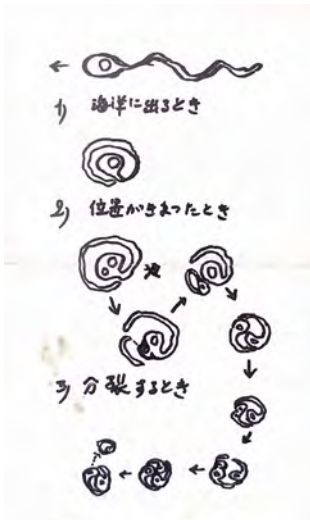


Abb. 36. Principle for the metabolic growth - cells division.

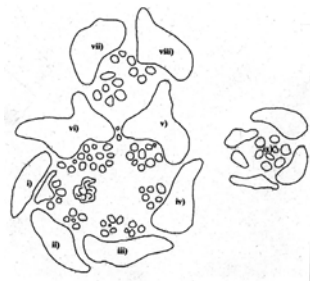


Abb. 37. Bigger industrial structures on the outside with the living units in the center.

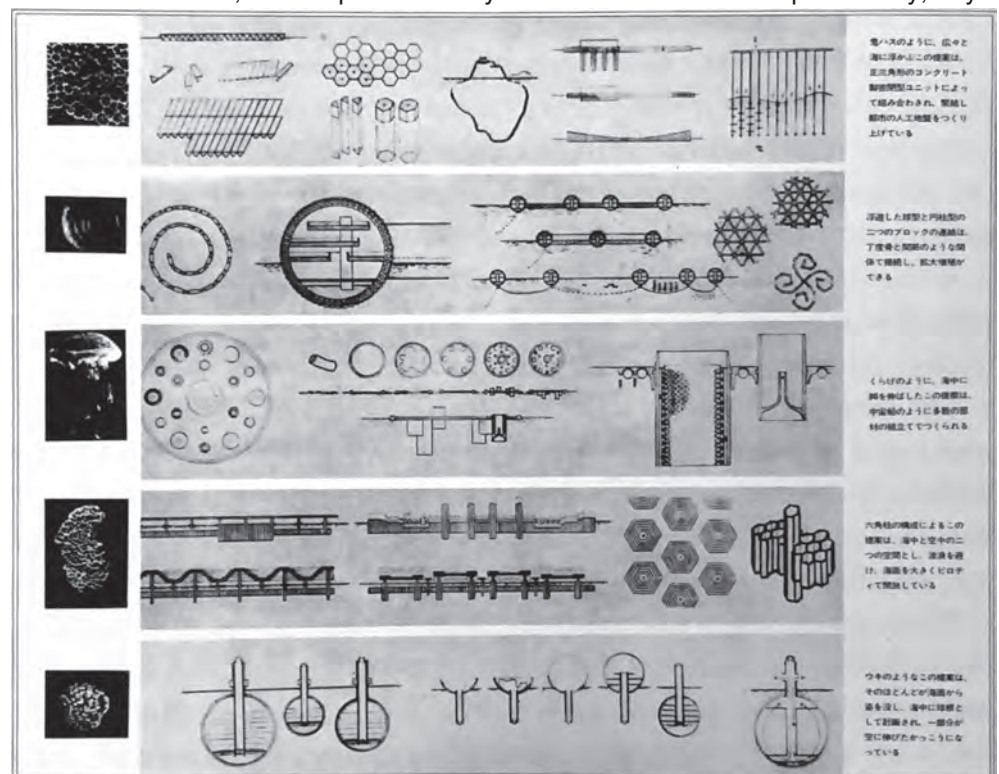
Abb. 38. Prototypes for development of Marine City in 5 stages.

floating lilies with the cylindrical shapes and round underwater facilities (Fig. 32). It was an attempt to design an artificial industrial city on the deep waters in the Bay of Suruga. This megastructure was to replace the conventional plants on the mainland, hosting the petrochemical, steel, chemical, electricity generating industries. Importantly, such city was subject to change up to total destruction, when it outlives the span or becomes irrelevant. Unlike the Plan Pampus in Amsterdam, Marine City was supposed to also sustain waves of any size with the circular 4 kilometer platforms afloat. It was moveable, climate controlled and autonomous.

Apparently, due to the significant focus on technology and advancement in Japan, Metabolists put a strong emphasis on the functional, technical aspects of urban design, instead of social matters. And yet it was relying on the idea of the organic, natural growth, like the cells did in the living body. Marine City was possible to potentially move around, and it was also a part of overall Ocean City, which included Tower-shaped Community project. Kikutake made a few stages of their concretization in the following years, also proposing the idea of living blocks on the sea.

The architect provided five variations of designing different key parts of future city (Fig.37). The first step towards construction was to provide the floating factory as a central element, bringing Marine City together. Ground was made of the airtight concrete triangular units, to support the top structures, some of them were extended downward. Those facing water, were concave, to lessen the up-and-down movement of the waves. To absorb this movement energy, there were special air-filled plastic balls and tubes on the outside parts of the triangular shapes.

Since the Marine City is shaped vertically, there was a body of water inside the the vertical spine for vegetation growth. Those structures also hosted the processing factories of harvested sea plants and stock rooms. Two types of blocks – spherical and column-like are connected like the organic joints but made of concrete. However, the shape of this city does not have to develop vertically; any



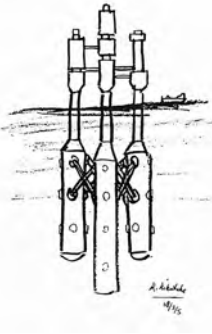


Abb.39. Underwater floating structures. Industrial unit typology.

shape can be attached to this bone-like structure, where the mooring is done by the anchors.

One of the infamous shapes of this city, illustrated in sketches was shaped as a jellyfish (Fig.39). It had a circular concrete tube unit, made to withstand the added stress. Slabs of light concrete were forming the membrane inside the circle, having benefits from the surface tensions. The cylindrical living space was built right into the sea, in a tentacle-like way – this form could be increased downwards according to population growth. Inside the cylinder there were living units against the wall, and the membranous part at the top was the community center. Next proposition consisted of numerous hexagonal columns as building material, made of plastic²⁶. They were glued or bound together for providing roofs, pillars, floors and so on. In case of living units on top, they would have a beehive shape. The area above the sea was for people, while the one below – for fish.

Abb.40. Scheme of the circular platforms. Production+Dwelling+Control facilities.

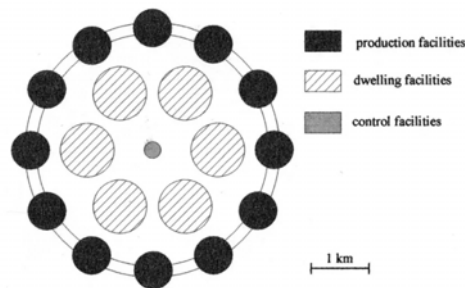
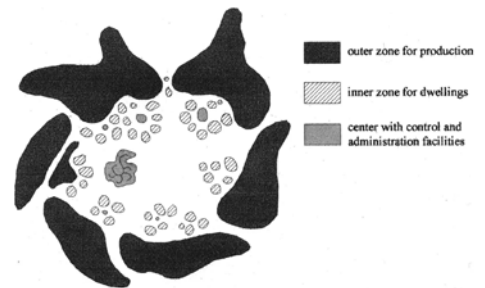
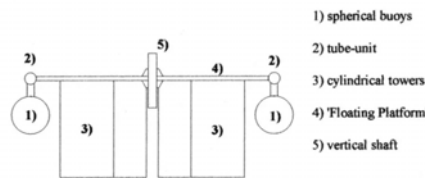


Abb.41. Detailed structure and distribution of functions.

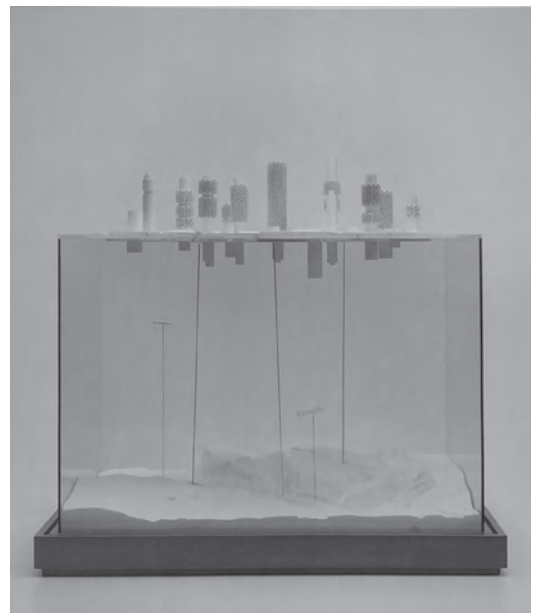


Finally, under the water, there were bulb-shaped structures (Fig. 41). They were equipped with the regulating tanks at the bottom, which had the up-and-down control, as well as turning. This typology was used for factories, warehouses, and due to the structure, it could be held so deeply grounded into the water, that no waves were threatening the balance. Such condition was beneficial for certain industries and experiments. Underwater bulbs could also distill the water, making abundance in storage.

Abb.42. Model for the industrial unit on the floating bulbs.



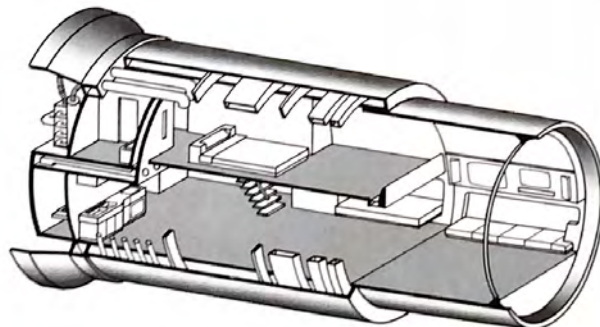
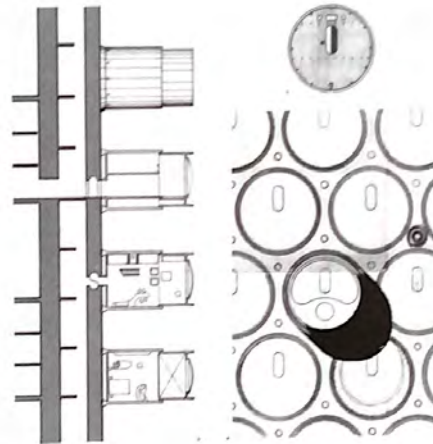
Abb.43. Model of the Marine City with different typologies and underwater floating elements.



26 *Between Land and Sea*. 2016. Pg. 93.

Important part of the Marine City was that Kikutake wanted to ban any usage of the cars in favor of moving belts and submarines. Such infrastructure would eliminate the amount of horizontal axis between the units and completely change the nature of people interaction. In this urban environment, people were supposed to live in the high-rise towers, places as candles inside the floating big lands. They had a central core with the attachable living units. Each of them had a closed-off sealed structure, providing a cell-like space. This capsule was of minimal square footage and hosted only essential amenities. Somehow, it reminded of the spaceship, which had a sleeping place, small kitchen, the bathroom and some common area. Everything placed into a compact prefabricated pod, which was just like any other one on the tower.

Abb.44. Structure of a capsule element. Prefabricated module for the residential tower unit.



There was no mentioned public space or even balconies, terraces, on which people could somehow communicate and interact. The controversy of being on the vast areas of the sea and inhabiting closed structures stands in opposition to the inclusive architecture of J. Bakema. Metabolist capsules that were meant to change and be replaced, just like the Structuralists wished for their projects, had a completely different flair. Here we reach the core difference in two seemingly familiar movements – individual's role in the Japanese idea is not clearly stated, if not eliminated as a deciding power for betterment of society; while the form and typology of capsules only emphasize the bigger separation in society as a collective. Perhaps, it again goes back to the cultural roots of the whole movement.

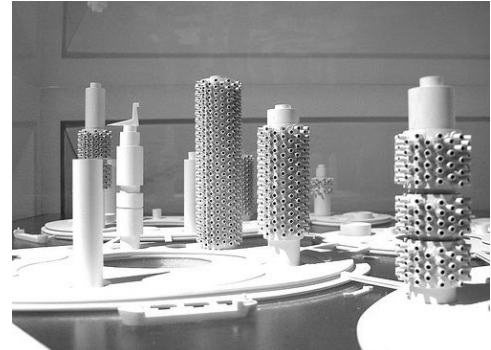
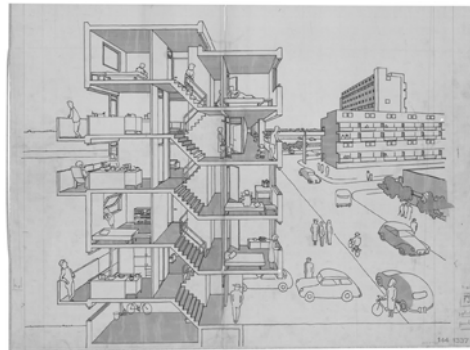
4 EVALUATION AND CORRELATION IN TERMS OF OPEN – CLOSED / INDIVIDUAL – COLLECTIVE

Analyzing two projects in parallel, I could sense the difference in thinking between the Dutch and Japanese architects. The results of the war left a trace in shaping the views of both countries: while one was relying heavily on the welfare system, social security and thus, expression of the individual choice in urban environment; another one was trying to find the new identity, position itself in the world affairs, inevitably coming to the great technological advancement.

Jaap Bakema was an idealist, who put a man, a user of the architecture into a leading role for improvement. He put the human freedom of choice in architecture and lifestyles beyond his self-expression. To him, any sort of forcing the policies change done by state onto people was not right, since each individual has a developed enough consciousness for taking bigger responsibility in decision-making process. In that way, individual did not mean one person's ideals standing against the society but the potential of one multiplied in the collective efforts. Bakema does not talk about the beauty of the units, about the precise way they should have been done. It also relates back to his aim for stimulating people to

Abb.45. Social interactions in the open structures. Plan Pampus.

Abb.46. Prefabricated residential towers on the central core. Marine City.



choose for themselves and experiment.

At the same time, for Metabolists it seems that the human being does not play such a significant role in changing the paradigm. As their manifesto implied, the architecture is a result of societal change, it develops and evolves organically with the all processes. Such thinking sets a different order, where the reaction is more important than proactivity on the individual level. When Kikutake writes about Marine City, he does not explain, what would be the lifestyle of a human in this new land. Instead, he focuses on the measures for stabilizing the islands and protecting them from the natural disasters, industrial development in the light of technological boom.

Perhaps, the natural landscape and being prone to the disasters that go with it also had an impact on formulating Metabolism as a natural process, going in sequence with any change. Its adaptability and resilience is given more focus than the role of individual, even if he is a part of bigger society.

Spatial expression of Structuralism stimulated more open-mindedness, engagement with other people, while having access to anything in the city (Fig. 47.). The feeling of vastness and freedom is widespread from the small exposed terrace to the monorail train, taking a passenger fast to anywhere. Such contrast after the devastations of WWII might have been inspiring for society to take things in their own hands and help them improve with time.

In contrast to that, there was no such openness in the Metabolist structures, the capsules. Partly because of the mentality difference, yet aspect of social cohesion is always overshadowed by the advanced structural explanations of the Marine City. Capsules of these towers do not seem variable – each of them is exactly like a cell in a scope of the living body. There, every individual is a part of bigger framework, playing his role in a group but not having the same freedom for self-expression, unlike the Dutch people.

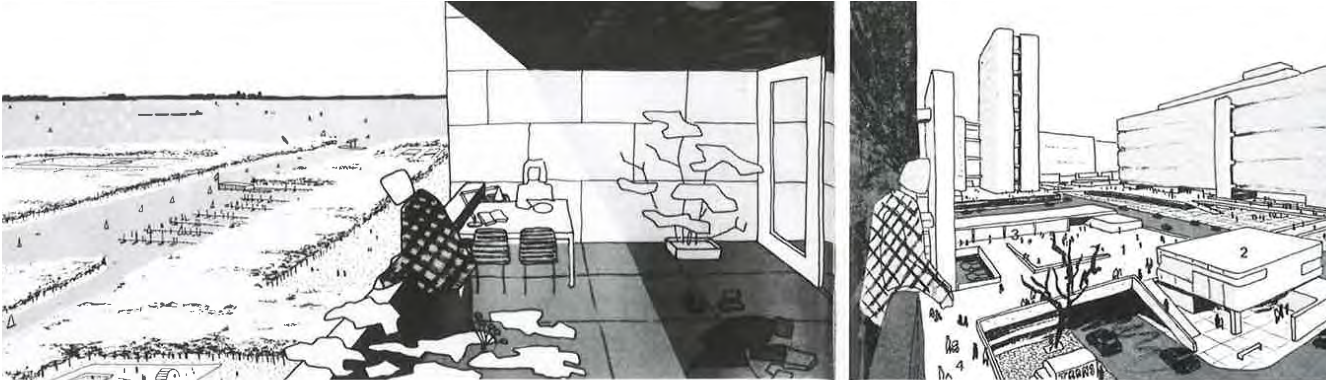


Abb. 47. Impressions of the extreme landscape and urban qualities as combined in the new city. 1-pedestrian level with play street and continuation of shopping center; 2-district hall of church; 3- school with playground above parking garage; 4-playstreet above workshops.

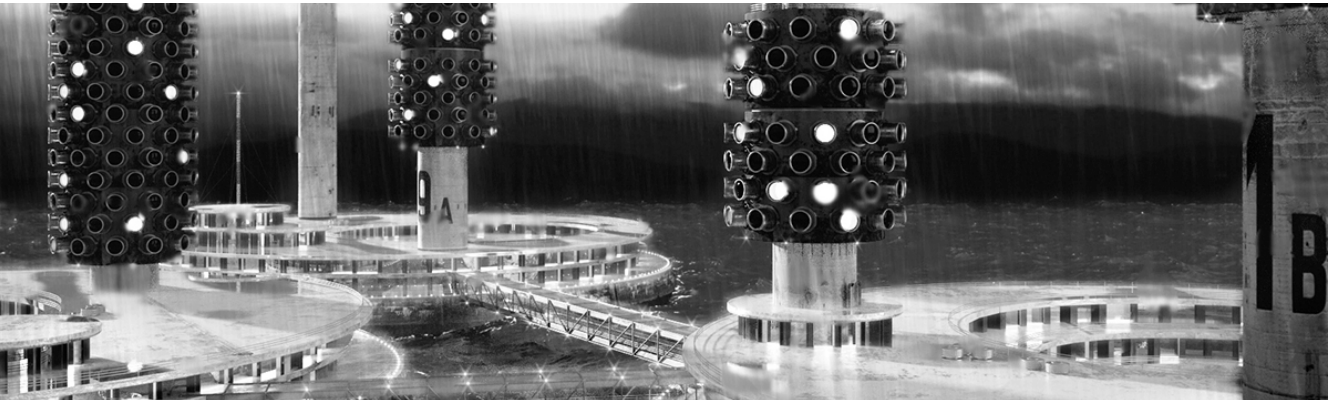


Abb. 48. Imaginary visualization of Marine City. Floating platforms in the storm.

5 CONCLUSION

When I started research about the post-war movements in the Netherlands and Japan, I assumed that the similarities would prevail. On the face value, Structuralists and Metabolists were pursuing the same goal – create architecture that was resilient enough and could respond to the challenges. Architects of both movements were also interacting and sharing ideas in the 50s-60s, which seemed to be putting them much closer on the spectrum.

However, despite the same significant event as the World War II, which became the driving force of rethinking, I started finding more and more details that would detach the two movements. Moreover, Cherie Wendelken mentions how Metabolists wanted to find the new identity, denouncing themselves from the western-prevailing influence. Their inspiration goes beyond the modernist avant-garde artists of the pre-war times but derives from the cultural roots of Shinto and the attitude to change as a notion (relate to the Shinto shrine Ito). Even shapes manifested collective nature over the individual expression, since they were all typical prefabricated capsules.

The Dutch buildings of Structuralism movement are still used to this day, as they have more adaptability of open spaces and exposed frameworks. People, using their 'conscious mind', as implied by Bakema before, find new ways to utilize the spaces in a new way, relevant for present times. At the same time, Metabolism as a movement has stopped its' existence in the 70s, and some buildings, like Nakagin Tower did not realize the ideas.

In the end, two movements have been different in terms of openness and closeness, not only in the architectural expression but also mentality-wise. Individual, as a freely expressing power to change the urban environment was not as prevailing in the Japanese idea. There the focus was more on technological advancement in realization of the future cities. Structural expression was also synchronized with the societal aspects – thus came the difference in the abundance of public spaces, open terraces, plazas, and so on by Bakema; and the closed-off prefabricated capsules with no focus on the community areas by Kikutake.

For me, it was hard to put Metabolists and Structuralists on the same scale, despite their common classification as the same typology, or as one is the variation of another. Two movements were relevant at their time, and the expression of ideas was heavily influenced by the socio-economic context, together with the political situations in both countries. Some of the ideas of multifunctional buildings, open space structures, and public spaces design still take their roots from the movements of the 50s-60s. They covered a truly fascinating period of the world reshaping and searching for the alternative ways of living.

6 QUELLENANGABEN SOURCES

Literatur / Literature:

J. Joedicke. (1976). *Van den Broek and Bakema. Architecture and Urbanism*. In: Karl Krämer Verlag, Stuttgart. Pg. 24-29, 76.

A. Lüchinger. (1983). *Strukturalismus in Architektur und Städtebau*. In: Kramer, Karl Stuttgart. Pg. 40-67.

M. Bettinotti. (1970). *Kenzo Tange 1946-1969: Architektur und Städtebau*. In: Fulda : Juchheim. Pg.12-40.

D. van den Heuvel. (2018). *Jaap Bakema and the Open Society*. In: ARCHIS. Pg. 38-49, 106-113, 130-141, 240-257.

K. T. Oshima. (2016). *Kiyonori Kikutake : between land and sea*. In: Lars Müller. Zurich. Pg. 10-24, 92-99, 184-208.

J. Serra. (n.d.). *Metabolism and the Structuralist Approach to Utopia*. <https://grousera.eu/paper/metabolism.pdf>

P. Blom. (1979). *Open Structures An Introductory-Dossier on Dutch Structuralism*. In: Volume 35: Everything Under Control. Pg. 2-32.

ArchEyes. *Marine City Megastructure / Kiyonori Kikutake*. (2020, May 8). <https://archeyes.com/marine-city-megastructure-kiyonori-kikutake/>

Suzuki, Hiroyuki / Yatsuka, Hajime Falkels, Anton. (1993). "Western Style and Eastern Mind" - ein neuer Metabolismus? : Interviews mit Hiroyuki Suzuki und Hajime Yatsuka. In: *Werk, Bauen + Wohnen*. Band 80. Pg. 41-48.

H. Hertzberger. (2016, October 6). *Lecture by Herman Hertzberger*. https://www.youtube.com/watch?v=BjOevccMMeo&t=3481s&ab_channel=A%2BArchitectureInBelgium

Metabolism Past and Future, Images from a Utopian Past. (2019, May 7). https://www.youtube.com/watch?v=r7YdPM01GqA&t=949s&ab_channel=HyperObjective

7 ABBILDUNGSVERZEICHNIS LIST OF FIGURES

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Abb.2: Marine City Megastructure. Kiyonori Kikutake. 1958 – 1963. From: <https://archeyes.com/marine-city-megastructure-kiyonori-kikutake/>. (2022, April 20).

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Abb.5: Amsterdam Orphanage. Aldo van Eyck. 1960. By CCA Mellon Lectures. From: https://www.archdaily.com/151566/ad-classics-amsterdam-orphanage-aldo-van-eyck?ad_medium=gallery. (2022, April 5).

Abb.6: Tokyo 1964 "Skiyabashi Crossing" Japan Press Research Institute. (1964). From: KK Kyodo News

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Abb.17: Shizuoka Press and Broadcasting Center. Kenzo Tange. (1967). From: <https://www.archdaily.com/422486/ad-classics-shizuoka-press-and-broadcasting-center-kenzo-tange> (2022, April 10).

Abb.18: Shizuoka Press and Broadcasting Center. Section. 1967. (1967). From: <https://www.archdaily.com/422486/ad-classics-shizuoka-press-and-broadcasting-center-kenzo-tange>. (2022, April 10).

Abb.19: The Yamanashi Press and Broadcaster Centre. Kenzo Tange. (1961-1965). From: <https://architectuul.com/architecture/yamanashi-broadcasting-and-press-centre>. (2022, May 23).

Abb.20: Kisho Kurokawa Box type-mass produced apartments project. (1962). From: https://www.researchgate.net/figure/Kisho-Kurokawa-Box-type-mass-produced-apartments-project-1962-Image-source-Kurokawa_fig42_314116498. (2022, May 28).

Abb.21: Pampus Extension Plan, Amsterdam (1964). From: collectie Het Nieuwe Instituut, BROX 1411t5-2, Van den Broek en Bakema Architects. Dutch Pavilion at the Venice Architecture Biennale. (2014).

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Abb.41: Detailed structure and distribution of functions. From: *Marine City Megastructures*. <https://archeyes.com/marine-city-megastructure-kiyonori-kikutake/>. (2022, May 5).

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8 DECLARATION OF ORIGINALITY

I hereby certify that the present work titled:

Utopian cities: between land and sea

Idealistic views of urban structures by J. Bakema
and K. Kikutake

was written by me independently, that no sources
and aids other than those indicated were used and
that the parts of the work that were taken from
other works - including electronic media - in terms
of wording or meaning are marked as borrowed,
and citing of the sources have been made.

Alina Shegay

Luzern, 14.06.2022

THEMENÜBERSICHT DER WEITEREN ARBEITEN – TOPIC OVERVIEW OF THE REMAINING WORKS

ABSTRACT

The present work deals with the work of the Dutch architects Herman Haan and Aldo van Eyck with focus on their African travels and different understandings, both ethnographic and architectural. This writing includes some of their work, writings and encounters with the African people. It examines these engagements and the concepts and ideas that went with them in the context of the architectural discourse. The essay shows how the architects' critical stance towards Western architecture and society found expression in their fascination with tribal African and other traditional, non-Western cultures and late-modern primitivism; but also that this went hand-in-hand with the desire for factual knowledge and anthropological insights and an important new relationship between architecture and the humanities. This paper explores how their fascination and approach to the Dogon people and African culture were different, and what it was with Herman Haan that made him less famous as an architect than Aldo van Eyck.

Vertiefungsarbeit
– In-depth Study

Herman Haan - in the shadow of Aldo van Eyck?

A study of Herman Haan and Aldo van Eyck's ethnographic work in Africa, and a reflection on why Herman Haan was placed in the shadow of Aldo van Eyck's architectural work.

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Datum: 14.06.2022

ABSTRACT

In the early 20th century, Maria Montessori revolutionised the schools of the early 20th century and worked toward the welfare of children. She actively put the children at the centre of a teaching system that encourages children to explore and define their personalities, seek their interests and be curious about the world around them. In the Montessori method, teachers are responsible to provide a space with the best learning conditions for children. This space is known as the “prepared environment”. Similarly, Herman Hertzberger has put the human being at the centre of his projects, without forgetting the early stages of life, in particular inside school buildings. This paper analyses three schools built by Hertzberger, to understand how his experience as a pupil and the theories developed by Maria Montessori influenced the way he designs schools. The three schools, the Montessori in Delft, Apollo schools in Amsterdam, and Anne Frank school in Papendrecht, create a bridge from a Montessori teaching method to a traditional one. This transition helps highlight what are in Hertzberger’s view intrinsic qualities that a school needs to have and what are rather adaptations to one or the other teaching method. Additionally, the analysis dives into the ways the architect provides spaces for non-didactic playing inside and around the school. Simple architectural elements without a strictly defined purpose become an inviting feature that allows open-ended play.

Vertiefungsarbeit
– In-depth Study

Play is the work of the child

A study of Maria Montessori's influence on Herman Hertzberger's schools

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ABSTRACT

Through the investigation of Dutch Structuralism's origins and orders, I attempt to contextualize the Aula of TU Delft in its many influencers and contributing factors. Keeping John Habraken's Structure and Infill Typology within structuralism in mind, I searched for clarification and information about this typology that competes with the more common Mat Typology. After research, our class attended a site visit of the building and I was able to gather information about the circulation of the space among many other subconscious rituals as you move through. Through the lens of structure and infill, I conduct a comparative analysis of the Aula with three other buildings that represent a particular type of architectural language. The three types of characteristics I examine are mass, repetition, and order. Each topic has a corresponding architectural project that parallels these building methodologies with the Aula. I looked specifically at projects within the umbrella of Japanese Metabolism as there is the most variation in building types and availability of information. Kenzo Tange and Kisho Kurokawa serve as the major promoters of Metabolism and thus contributed significant work for the movement. Jo van den Broek and Jaap Bakema also served as key figures in the movement of Dutch Structuralism and have many interesting projects that reflect the approach towards architecture during the mid-century following World War II.

Vertiefungsarbeit
– In-depth Study

Between the -isms

A contextual study of Van den Broek
and Bakema's Aula at TU Delft

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ABSTRACT

In the beginning of the second half of the 20th Century a group of architects within the C.I.A.M. (Congrès Internationaux d'Architecture Moderne), known as Team 10, aim to find new way of thinking architecture in a more genuine way that it serves society. One of the most remarkable members of this Movement is Aldo Van Eyck, who focuses on reconciling what he calls 'twin-phenomena'. These twin opposites co-exist in the reality but have been arbitrarily split and set in conflict by society. Van Eyck proposes the principle of the 'In-between' in order to re-establish the balance among apparent opposites and develops the concept towards an architectural theoretic framework and language. Another architect associated to the Dutch Structuralist Movement, Herman Hertzberger, also adopts the principle and claims that the 'in-between' is a place by itself and describes the multiple situations it can host.

Van Eyck proves his theories by traveling to other cultures and observing of the 'vernacular of the heart'. In these experiences he perceives how the spiritual and mundane phenomena are restored. He embraces it as his own cosmologic perception three years later, when he designs two churches: The Protestant Church 'The Wheels of Heaven' in Driebergen (unbuilt) and the Roman Catholic Church 'Pastor Van Ars' in the Hague (built). Van Eyck applies the concept in different scales, so the equipoise is restored, provides the in-between with different spatial qualities and even extends its use to constructive technique and symbolism.

Vertiefungsarbeit
– In-depth Study

The restored balance between humane and sacred.

An analysis on the theory of the 'In-between', and its extent in application at Pastor Van Ars Church's design

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ABSTRACT

This research is mapping out the theories of Open Form developed by Polish architect and visionary Oskar Hansen. This assignment is presented as part of the in-depth work module with the topic of Dutch Structuralism - the human being at the center of house and city. This study gives an overview of Oskar Hansen's life and his theories and puts them into a theoretical and historical context in the second half of the 1900s. Hansen was a regular participant at the CIAM congress and later became a member of Team 10. Through these memberships he was able to voice his thoughts on the architectural discourse at the time. This study goes on to present the basic principles of his theories of Open Form that he presented for the architectural society at the last CIAM congress in Otterlo in 1959. A summary and overview of his presentation in Otterlo is given, and the application of these theories discussed through two of his most influential projects: The Linear Continuous System and the Szumin Summer House. Lastly an overview of the way he taught this ideology to his students is given.

Vertiefungsarbeit
– In-depth Study

Open Form

An Ideology of Architecture by Oskar Hansen

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ABSTRACT

This Study will explore the use of patterns in the structuralism movement. Starting with introducing the use of patterns by Dutch architect Frans van der Werf in his Molenvliet project. Backed by John Habraken and the theory of Alexander's pattern language. The Study continues with a closer look on patterns In Structuralism. These patterns can be divided in many different research points inside the movement. Their origin in social study, ancient patterns, how patterns create diversity & order and where the roots are of this term. At the end of the study we will look at modern solutions in the structuralism way of thinking. How did it evolve and is structuralism überhaupt a style or is it just a way of saying, „we use structure to build our buildings“, and this, is the only method to build and how we always have build

Vertiefungsarbeit
– In-depth Study

Structuralism Patterns

patterns in structuralism architecture
and their evolution today

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ABSTRACT

The present work is part of the in-depth work module under the overarching topic of Dutch structuralism – the human being at the center of house and city. During this work, we will deal with the geometry of Aldo Van Eyck's play-grounds, studying them in composition with Kandinsky paintings. The focus of this work is to approach Aldo Van Eyck's architecture from a different perspective, studying its geometric composition and seeing how his works interact with those of Kandinsky. Through the methodical analysis of the drawings, on the one hand, the pictorial elements allow us to study Aldo Van Eyck's play-grounds from another perspective. On the other hand, their meaning on the development path is determined through interpretation. Nevertheless, we can say that the result will show us Aldo Van Eyck's playgrounds with Kandinsky's eyes. Furthermore, that will lead us to a different interpretation of his compositions.

Vertiefungsarbeit
– In-depth Study

Painting playgrounds

Potential similarities between Aldo Van Eyck and Kandinsky artistic concepts

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ABSTRACT

During the late `50s and early `60s, in Netherland, the housing shortage was the most controversial topic, followed later on by the mass housing which was seen as inevitable after WW2. On the other hand, the Structuralism movement and their first experiments with housing had just started to apply.

This paper slightly investigates the theories of John Habraken about open building as a solution to mass housing, in which the focus is more on the needs of residents and their participation in the design process. While the main part of this investigation would be focused on the built example of the Experimental Diagoon Houses by Herman Hertzberger, and the application of the polyvalence to this project. The intention is to analyze and compare the theories of both architects.

The research arises from both authors` books and case studies, a collection of some written interviews from some of the residents throughout the fifty years of the time-course, and after visiting one of the houses myself.

Vertiefungsarbeit
– In-depth Study

Towards a Decisiion-Making

Diagoon Houses as a Built Example

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ABSTRACT

Herman Hertzberger wrote many theoretical books and articles about architecture. This paper focuses on one particular topic from his theories that Herman Hertzberger concerned himself with. The study serves as a collection of design methods that Herman Hertzberger adopted to encourage users to take over a room or a building and claim it for themselves. These design methods have been illustrated through the use of examples from the architect's own buildings. The aim of the paper was to develop a better understanding of how architects can design for user appropriation and when it is suitable to implement certain design methods. Finally, it is of interest to see how this idea of encouraging the appropriation of space is relevant today.

Vertiefungsarbeit
– In-depth Study

Appropriation of space

A collection of Herman Hertzberger's design methods used to encourage the user to place their identity on a space

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ABSTRACT

Die vorliegende Arbeit befasst sich im Rahmen des Moduls «Vertiefungsarbeit» unter dem Überthema «Niederländischer Strukturalismus - Der Mensch im Mittelpunkt von Haus und Stadt» mit den Beziehungen zwischen den von Aldo und Hannie van Eyck gesammelten Modernen Kunstwerken und der Architektur von Aldo van Eyck. Von der eigenen Wohnung in Amsterdam ausgehend, befasst sich die Arbeit mit der Pastoor van Ars Kirche, der Spielplatz Architektur und dem Hubertushuis von Aldo van Eyck. Der Vergleich zwischen Kunstwerk und Architektur erschafft einen Zugang, welcher das Werk des Architekten umdeutet. Auf formaler wie auch inhaltlicher Ebene beschäftigt sich der Architekt mit ähnlichen Fragestellungen, wie die Künstler:Innen des 20. Jahrhunderts. So verfolgen beide das Ziel einer Expression der «reinen» Form und untersuchen dabei beharrlich die Verhältnisse von gemalten- oder gebauten Elementen zueinander. Die Kunstsammlung von Aldo und Hannie van Eyck schafft einen Kontext, der die bereits vorhandenen Interpretationen des Werks von Aldo van Eyck nicht ausschliesst. Sie verleiht dem Gesamtwerk des Architekten zusätzliche Komplexität.

Vertiefungsarbeit
– In-depth Study

Nichts und Alles

Zum Einfluss Moderner Kunst auf die
Architektur von Aldo van Eyck

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ABSTRACT

This research is going in to more detail on Aldo van Eyck's beginners years with a particular focus on his so-called 'experimental years' or the first years of his carrière with the Amsterdam playgrounds. The research is guided by a time-line which briefly discuss every big event happening in van Eyck's life that had an influence on his architectural thin-king and later work. In the time-line becomes clear that the experimental years of Aldo van Eyck begin in the same year as the Co.br.A. movement established. Van Eyck was an undefined member of Co.Br.A. The movement focus on the innocent childs drawing as a way to escape the havoc of the post-war society. In this work I would like to find out if it is only coincidence that the ideas of Co.Br.A. are so similar to the playgrounds of van Eyck or if more is happening. In this way I hope to get a better understanding of why the playgrounds were such a success.

Vertiefungsarbeit
– In-depth Study

A Childs perspective on the Urban city

A time-lapse of Aldo van Eyck's active years with a specific focus on the Co.Br.A.-movement.

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ABSTRACT

In this work I write a personal reflection on certain parts out of the book, 'Bauen als umweltzerstörung', specified Zurich. In response to the reflection of Flemish Baumeister, Leo van Broeck on the book 'Het lelijkste land ter wereld'. Both books are written around the same time-period, '60-'70 and are manifesto's on the condition of the fast changing landscape and the problems of non-thinking building. Sadly, many building process are not different than today. Although in both manifesto's are solution given, the situation today is still unchanged. In this research study the similarities and differences in the overall urban landscape between back then and now through the usage of a third manifesto, 'The new city of Glatt!', which comes with a whole new story. The city as a solution for the for the dissolution of open space!

Vertiefungsarbeit
— In-depth Study

The city as an environmental saviour!

An equation of the manifestos of Renaat Braem and Rolf Keller in the 70's and Glatt! Today.

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ABSTRACT

This paper explores how the ‘polyvalent’ design theory manifests itself in reality by exploring the concepts of polyvalency, flexibility, and transformation in Dutch structuralist buildings from a contemporary point of view. The discourse on structures and structuralism is now more relevant than ever, as it is not feasible and sustainable to demolish and reconstruct buildings – hence existing buildings need to be transformed.

Three relevant case studies, namely the Civil Orphanage, the Centraal Beheer office building and the Ministry of Social Welfare and Employment are analyzed in a before and after framework to deduce the themes of flexibility and polyvalency and how they manifest in reality and not just in theory.

The study shows how specificity in a design makes it difficult for a building to be adapted and that a balance of inherent inclusive generic spaces arranged in a building order together with a fixed, permanent zone that ties the spaces together, lend a building the capacity to be more easily transformed.

Our current and future problems demand architecture to always be capable of providing suitable solutions to any arising issue and therefore being polyvalent.

Vertiefungsarbeit
– In-depth Study

Adapting to the Unexpected

An epilogue on the flexibility and polyvalency of Dutch structuralist buildings

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ABSTRACT

Die vorliegende Arbeit befasst sich im Rahmen des Moduls «Vertiefungsarbeit» unter dem Überthema «Niederländischer Strukturalismus – Der Mensch im Mittelpunkt von Haus und Stadt» mit dem Architekten Aldo van Eyck und seiner kritischen Haltung gegenüber Postmodernisten und Rationalisten. Der Titel sowie der Untertitel dieser Arbeit sind ironisch gemeinte Anspielungen auf Aldo van Eyck's Denken.

In den siebziger Jahren sind verschiedene Architekturströmungen entstanden, die einen Bruch mit der Moderne angestrebt haben. Neben dem handwerklichen Neoklassizismus von Leon Krier und dem neuen Rationalismus von Aldo Rossi hat Aldo van Eyck den Postmodernismus von Robert Venturi abgelehnt. Die Ausgangslage der nachfolgenden Arbeit bilden Artikel, Texte sowie Vorträge, bei denen Aldo van Eyck gegen die Tendenzen vorgegangen ist, welche er als Fehlentwicklungen oder Ablehnungen der Moderne betrachtet hat. Dabei wird besonders auf Postmodernist Robert Venturi und sein Guild House eingegangen. Als Vergleichsobjekt dient das Hubertus House von Aldo van Eyck. Anhand der Kritik von Aldo van Eyck am Guild House zeigt sich seine architektonische Haltung und wie er damit bei seinen eigenen Gebäuden umgegangen ist.

Vertiefungsarbeit
– In-depth Study

Kriminelle Architektur

Aldo van Eyck's Kritik an Robert Venturi, den Postmodernisten und allen anderen sich auf dem Irrweg befindenden Architekten

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ABSTRACT

This writing aims to show theories and buildings of the Dutch structuralist movement after the CIAM and during the Team 10 era starting from 1959. As this is a huge topic to analyse and there are a lot of topics and theories to build on that all have changed and evolved over the years, this writing will focus on one aspect of Dutch structuralism in theory, urban scale and building scale. This notion is the idea of the building as a city and the city as a building. What were the theories these Dutch architects developed? Why would you want the building to be a city? How did the Dutch architects implement their theories into the buildings? These are the questions of interest in the following texts. A great thing about this topic is that these Dutch architects didn't just theorize but also carried out their ideas and built a lot of examples that the new generation can learn from. The two main protagonists will be Herman Hertzberger and Aldo van Eyck, as both of them strongly believe in the idea of house is city and city is house and have both written about and practiced architecture.

This work will focus on the building as a city, because of my personal interest as an architect, not so much as an urban planner on how the buildings were turned into cities and with what exact design ideas in mind.

Vertiefungsarbeit
– In-depth Study

The building as a city

in-depth analysis of theory and
implementation in dutch structuralism

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ABSTRACT

This work intends to explore the concept of the Open Building. In particular, its origin, effect, and efficacy in delivering what it promises. In this exploration, we will see how general dissatisfaction with the post-war construction environment led to the development of the theoretical notion of the Open building. The new idea introduced the vision of participation and adaptability of the building to create an environment that better expresses the users' needs. One of the first examples that used this idea was the Manovliet Project. The case study shows that the theory could be applied to a real example. However, we will see that its adaptability promises were not used.

The concept of the Open Building is still echoing in the field of architecture and is still applied and explored. Some case studies show that the idea has evolved in certain aspects, but it is still unclear if it will be more successful.

From this work, we can conclude that there is potential in the concept but also limitations and inherent difficulties. The idea needs more experimentation and time to determine in what form and degree this idea can be applied.

Vertiefungsarbeit
– In-depth Study

Open Building

An exploration on the concept, why it does not function and why it does not matter

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ABSTRACT

Post-World War II reconstruction marked a pivotal shift in society on a global scale. Rebuilding efforts in countries directly affected by war-related destruction went through periods of dramatic transformation as they worked towards rebuilding their respective countries both physically and in their socio-political identity. While there were terrible causes for these rebuilding efforts, destruction also led to opportunity, as architects used this time of reconstruction to push their radical, often utopian, ideals into public conversation and into the architectural zeitgeist through projects of architecture and urban planning both built and unbuilt. Two of such figures were Kenzo Tange, in Japan and Jaap Bakema, in the Netherlands. Although differences in their responses to reconstruction are evident, one major commonality amongst their goals was the call for political and social change through utopian architecture and urban planning proposals made possible during this “*tabla rasa*” period in their respective countries. The following essay is a study in the way in which unbuilt utopias of Kenzo Tange and Jaap Bakema reflect their intention to push their ideologies and socio-political beliefs through architectural language as a response to political and societal issues of the time. In this way, these visionary utopias can be analyzed as projects of protest that push back against the political mainstream of the time. The works specifically targeted as best representations of their respective beliefs are Kenzo Tange’s “Tokyo Bay Plan” and Jaap Bakema’s “Plan for Pampus”. Through analysis of the architectural elements articulated within these projects, one can deduce the ways in which the two architects from vastly different backgrounds formulated and articulated their respective architectural languages that express their protest of the present and visions for the futures of their respective countries.

Vertiefungsarbeit
– In-depth Study

Team 10 Ideology and Unbuilt Utopias

Analyzing the Socio-Political Ideology Behind the Unbuilt Utopias of Jaap Bakema and Kenzo Tange

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ABSTRACT

A series of events that took place in the Netherlands in the 60s had a significant impact on the education system of that time. These events brought various barriers and difficulties to Dutch schools. Inspired by this situation, one of the famous architects of that time, Herman Hertzberger, developed a series of principles against the situation that had gripped education in the Netherlands. Excessively influenced by his experience in Montessori schools, Herman Hertzberger brought many changes and stimulated a large number of methods that had not been applied before. Aided by comparing a number of schools, the purpose is to have an in-depth understanding of several principles which characterize the schools of this architect and also to realize to what extent he managed to apply in his schools. Analysis of Hertzberger's schools exhibits concrete interventions towards creating and also improving an environment that influence many social and educational aspects.

Vertiefungsarbeit
– In-depth Study

Architecture as a component of the education system

A study on Herman Hertzberger schools in the Netherlands

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ABSTRACT

I began by studying Hertzberger's Lessons for Architecture Students, which is conceived as a set of insights to think about when designing, and these phenomena are then explored in more detail through examples of several of Hertzberger's own buildings. After further study of the work of other structuralists, I realized that in all of the designs there is some concern for the future users, however, in Hertzberger's designs there is the greatest effort to empathize with the needs of the users and to see the range of possible situations arising in the future building from the perspective of its occupants, whether they are young children, mothers, or the elderly.

The question then arose: Hertzberger's buildings are characterised by a certain customisation to the future user. How does he design for different age groups?

In order to understand the deeper question of how thinking about the human being as a being with not only different needs but also different physical predispositions has gradually come into the focus of architects, I started with historical research. In it I outline some of the main ideas and tendencies of the 20th century that have influenced this perception. Then I put four representable projects in chronological order of how they go through one's life - school, student living, living, elderly house. In order to systematize the projects, I tried to create a set of categories that would focus on the specifics of particular spaces and link the individual examples. The result should be a reflection on how the different needs of people of different ages are perceived in Hertzberger's projects and how these distinctions are subsequently articulated in the architecture.

Vertiefungsarbeit
– In-depth Study

Principles of care in the work of

Herman Hertzberger

Designing through the perspective of
the eyes of the user

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ABSTRACT

Die vorliegende Arbeit befasst sich im Rahmen des Vertiefungsmoduls unter dem Überthema “Niederländischer Strukturalismus” mit der städtebaulichen Planung und Entwicklung des Noordoostpolders sowie im spezifischen dem Dorf Nagele. Die Planung des Noordoostpolders erfolgte während und nach dem Zweiten Weltkrieg. Grösstenteils im Stil der Delfter Schule und nach den Grundsätzen Camillo Sittes entworfen, stellt Nagele die Ausnahme dar. Dieses Dorf wurde von einer Untergruppe der CIAM-Mitglieder nach strukturalistischen Grundsätzen entworfen und realisiert.

Worin unterscheidet sich Nagele von den übrigen Dörfern des Noordoostpolders? Wo und inwiefern sind die Einflüsse des Strukturalismus, aber auch der CIAM in Nagele ablesbar? Wie manifestiert er sich im Städtebau? Welchen Einfluss hat der Städtebau auf die Gesellschaft, die in Nagele lebt?

Die Analyse und der Vergleich der traditionellen Dörfer im Noordoostpolder und Nagele soll Antworten auf diese Fragen liefern.

Vertiefungsarbeit
– In-depth Study

Städtebau im Strukturalismus

Nagele - Stadtplanung im Noordoostpolder

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ABSTRACT

Die vorliegende Arbeit befasst sich im Rahmen des Moduls Vertiefungsarbeit unter dem Überthema «Niederländischer Strukturalismus – Der Mensch im Zentrum von Haus und Stadt» mit Herman Hertzbergers Ansicht der Architektur und dem Einfluss Maria Montessoris. Im Fokus der Arbeit steht das Material der Vorlesungen von Herman Hertzberger an der TU in Delft, welches in den «Lessons for Students in Architecture» 1-3 zusammengetragen ist. Das Material ist nach wie vor von grosser Bedeutung für den Unterricht von Architektur-studierenden. Mit Hilfe von ausgewählten Schriften von Maria Montessori und einem Ausstellungskatalog über die Möbel und die Architektur der Montessori-Schulen werden die Hintergründe und Einflüsse auf die Ansichten von Herman Hertzberger aufgezeigt. Diese Verknüpfungen lassen darauf schliessen, dass Maria Montessori das Architekturverständnis von Herman Hertzberger stark geprägt hat. Hertzbergers Schriften lassen sich als Montessori-Methode der Architektur betrachten.

Vertiefungsarbeit
– In-depth Study

Die vorbereitete Umgebung

Herman Hertzbergers «Lessons for Students in Architecture» 1-3 + Maria Montessori

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ABSTRACT

Lotte Stam-Beese was an architect and urban designer who focused her career in Rotterdam, Netherlands. She was a pioneer for other females to follow as she was one of the first women of substantial status within the realm of architecture to work in the Netherlands. Despite her significant contributions to the redevelopment of Rotterdam post World War II, she has received little recognition in comparison to her male counterparts. It is important to understand Stam-Beese's background and ideologies to relate this information to her completed projects and realise her passion for creating a better future. Through various case studies and texts, patterns of her work and beliefs become evident. By exploring the truths behind her designs, information was provided as to how her passion for architecture was influenced by her past experiences. These truths and passions are revealed through various urban strategies such as communal gardens, the neighbourhood concept, and the residential path. Ultimately, Lotte Stam-Beese utilised architecture and urban design as a tool to combat social crises with a goal of creating healthier and more balanced living environments.

Vertiefungsarbeit
— In-depth Study

Woman Amongst Men

Lotte Stam-Beese's Tools to Address
the Social Structure through Architec-
ture and Urban Design.

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ABSTRACT

This work is concerned with the underlying connection of linguistic theories in Herman Hertzberger's philosophy and its direct application. We explore the phenomena by understanding the terms readability and interpretability, which is the connecting factor in the architecture of the architect and the user. Hertzberger then communicates through his architecture and establishes a relationship between the architect, form, and the user. The relevance of the user in his work is shifted from a known client to an anonymous user of his architecture. Nevertheless, this new position bears more responsibility for the user, which the architect assigns them by taking a step back in his design.

Vertiefungsarbeit
– In-depth Study

From Readability to Interpretability

Language at its parole in Herman
Hertzberger's Architecture

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ABSTRACT

In the middle of the 20th century, our society went through several changes. The world was a few years after the end of the Second World War, and Europe was experiencing the Cold War between the West and the East. These two significant events had a strong impact on both society and cities. Nevertheless, this period was a sign of a number of changes that sought to react and find solutions to the problems at hand. On the CIAM architectural scene, a new grouping, Team X, emerged, a group of young architects who set out on a new path in contrast to the original direction of CIAM. The path of structuralism, through which they tried to solve the problems of the then disintegrated society, precisely through architecture.

Berlin faced a similar problem of a broken society in the 1950s. Not only did it have to resolve the question of its future and development, as much of the city centre was bombed out during the Second World War, but it was also faced with the question of its identity as the capital of a country that had to resolve its unification.

In this thesis I would therefore like to analyse two competition projects for the capital of Berlin, which came specifically from the architects of Team X, Bakema and Smithson. Here I would like to analyse their individual interpretations of structuralism in their theories and characterise their competition proposals for Berlin and explore how they have interpreted their philosophy into their projects. I would then like to compare these approaches they have applied to their projects with each other. At the same time, I find it important to clarify not only the political context and the brief of the competition, but also to define the basic philosophy of structuralism in architecture.

Vertiefungsarbeit
– In-depth Study

The Heart of the City

Structural urban design for the
Hauptstadt Berlin competition
1957/1958

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ABSTRACT

During the semester, I read several books on the Van Eyck's architectural theory and practice, which aroused my interest in his projects. This was the reason why I chose his Orphanage project in Amsterdam for the building portrait. After analysis of the study case and related literature, I found the predominance of clear geometrical shape – circle, among play elements in the Orphanage. It intrigued me and raised a lot of questions. Thus, I decided on a specific topic for the semester's work.

In this work, I research the theme of round objects for play in the Orphanage. I was wondering why the architect used this particular form, how and why he used multiplication of one form and what is the result, why he placed the objects in their locations and created certain volumes, and how the design was influenced by the needs of the potential user.

Thus, in this paper, I first briefly describe the Orphanage to understand the context, and then the theory and motives used by the architect to design the objects. Here I discuss Otterlo circles (CIAM 1959), City as home and home as city, In-between space, Twinphenomena, Van Eyck's playgrounds' design method, the influence of Dogon culture, and archaic forms in connection with the round elements for play in the Orphanage. This provides the necessary basis to answer the questions I posed.

Next, I compiled round playful elements, located both inside and outside the building, with a detailed description. The catalog supports and reflects the theory I presented earlier, and helps to analyze and summarize my work in more depth.

The work was written based on literature, articles, photo analysis, and talks with two architects, Herman Herzberger and Jorn Konijn.

Vertiefungsarbeit
– In-depth Study

Playful Circles

Amsterdam Orphanage by Aldo van Eyck

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ABSTRACT

Der vorliegende Text befasst sich im Rahmen des Niederländischen Strukturalismus mit der Wichtigkeit der Partizipation von Nutzer:innen im Planungsprozess und der Rolle die Architekturschaffende dabei einnehmen. Dazu wurden zwei wichtige Textwerke von Jaap Bakema aus den Jahren 1964 und 1971 in Bezug auf die Individualität menschlicher Bedürfnisse und ihre Bezug zum Leben in der Gemeinschaft analysiert. Der theoretische Ansatz wurde anschliessend am Beispiel der in den Jahren 1967-1970 von Hermann Hertzberger gebauten Dia-
goon Häuser näher veranschaulicht. Es bestätigte sich die Annahme, dass Architekturen weniger raumdefinierend sein müssen, sondern eher ein Raumgerüst mit genügend Anknüpfungspunkten für individuelle Lebensstile bieten sollten. Architekturschaffende sollten deshalb ein gesamtgesellschaftliches Verständnis besitzen, um partizipative Planungsprozesse koordinieren zu können, aus denen anschliessend solche Raumgerüste hervorgehen. Besonders interessant ist jedoch die unmittelbare Vergleichbarkeit der gesellschaftlichen Situation und ihr Einfluss auf die Architektur der damaligen und aktuellen Zeit.

Vertiefungsarbeit
– In-depth Study

Team Architektur

Partizipation von Nutzer:innen

und die Rolle der Architekturschaffenden

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ABSTRACT

This work aims to study the architecture of multifunctional community centres as a social and political change in the 1960s and 1970s. For doing it has been studied the work of Frank Van Klingeren, engineer and architect, an advocate of the Dutch Structuralism movement. Although he was a little known architect, van Klingeren developed a very different and innovative way of building public spaces. The work will focus on analysing two of his most famous works, both by studying the building when it was constructed and also its evolution up to the current state. Finally, by collecting his ideas, questions will be asked about how we can translate his architecture into today's cities.

Vertiefungsarbeit
– In-depth Study

Vessel for social and political change

Two community centers by Frank Van Klingeren

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ABSTRACT

Within the framework of the structuralist movement, in 1974 Alison Smithson published the article 'How to recognize and read a Mat Building'. A new architecture concept that follows an intuitive logic of basic human patterns, and find an inner affinity with the urban fabrics of the antiquity. In the mentioned article, the concept is, intentionally, presented full of ambiguity. Following a reasoning in which almost every architecture work can be considered as Mat Building, as long as this is defined by quite general project strategies, that can be exemplified in a wide range of particular manifestations.

Though an overview of some buildings, this written work tries to move from the purely theoretical field to concrete characteristics that we can hold on to, under our will of architects makers, without compromising the internal open logic of the concept.

Vertiefungsarbeit
– In-depth Study

Collective Anonymous

Historical recurrence of Mat Building

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ABSTRACT

This study investigates how a new architectural idea obtained distinctness within post World War 2 European architectural discourse. By tracing its path from Morocco to Netherlands and attempting to construct a correlation between Dutch Structuralist principles and the Maghreb 'kasbah', the research explores how the original assertions of the narrative's main protagonists through publications on architecture and their direct casual relationships, played a principal part in making popular the idea of 'habitat' in European architectural domain. Set within the postwar radically new social political context of Europe and North Africa, the paper pays particular attention to the period of time that CIAM developments in Africa lead to a doubtfulness of the modernist dogmas by its very agents, subsequently to the dissolution of CIAM as an international institution. The main argument the examination puts forward is that the significance of Team 10 lies less in their role as revolutionists who disintegrated the CIAM, than as contributors, to the architecture culture, to a critique of Modernism happening in postwar society in general.

Vertiefungsarbeit
– In-depth Study

The Future Towards the Past

The journey of habitat with vernacular modernism as an intermediary

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ABSTRACT

During the post-war period there was a growing dissatisfaction among architects regarding the way Modernism radically had changed the built environment of the world. The critique attacked the abstractness of its ideas, claiming place had to be taken back into consideration. Architects and theorists Christian Norberg-Schulz and Aldo van Eyck both developed theories aiming to once again include place in architectural design and planning. Norberg-Schulz elaborated his phenomenology of place through the concepts of existential foothold, dwelling and Genius Loci. Simultaneously, van Eyck as a member of the Dutch structuralist movement explored place through his concepts of twin-phenomena and configurative design. Their work forms a comprehensive exploration and discussion of place as something more than its quantitative qualities, searching towards a more profound, tangible and influential notion of place.

Vertiefungsarbeit
– In-depth Study

Notions of Place

The theoretical approach of Aldo van Eyck and Christian Norberg-Schulz to the notion of place

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ABSTRACT

Die vorliegende Arbeit befasst sich im Rahmen des Vertiefungsmoduls unter dem Thema „Niederländischer Strukturalismus - Der Mensch im Zentrum von Haus und Stadt“ mit dem Team X und dessen Einfluss auf das Schaffen der Architekt:innen Jacob Berend Bakema und Alison & Peter Smithson. Ziel der Arbeit ist es, eine weitere Sichtweise auf die Bauten der beiden Architekt:innen aufzuzeigen, die aufgrund der Zusammenarbeit anlässlich der Kongresse des Team X entstanden sind. Als treibende Kräfte dieser Kongresse haben Bakema und die Smithsons den Architekturdiskurs zwischen 1950 und 1980 wesentlich geprägt und ihn als bedeutenden Bestandteil in ihre Projekte integriert. Mit der methodischen Aufarbeitung des architektonischen Umfeldes werden die Arbeiten von Jacob Berend Bakema und Alison & Peter Smithson miteinander in Beziehung gesetzt.

Vertiefungsarbeit
– In-depth Study

Die Früchte des Team X

Eine Auseinandersetzung mit dem gegenseitigen Einfluss der Architekt:innen Jacob Berend Bakema und Alison & Peter Smithson auf ihr jeweiliges Schaffen.

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ABSTRACT

Aldo Van Eyck is known as one of the founders of Team 10, a group that criticized CIAM's ideals and later became one of the triggers of CIAM's end. He was very vocal when it comes to what architecture is or should be – as seen in a compilation of his writings consisting of two volumes totaling to more than 800 pages. The first part of this paper aims to understand Van Eyck's thoughts through his writings. The second part consists of developing a personal experiential interpretation of Van Eyck's theory. The study intends to conclude with an understanding of Van Eyck's ideas through a personal exploration.

Vertiefungsarbeit
– In-depth Study

Experiencing Van Eyck's Thoughts

An interpretation of Aldo Van Eyck's
Writings

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ABSTRACT

Im Buch «Der Strukturalismus in Architektur und Städtebau» befasst sich Arnulf Lüchinger unter anderem stark mit der Arbeit von Hertzberger und van Eyck. Einen besonderen Fokus legte Lüchinger dabei auf den «Raum des Zwischen», mit dem sich die beiden Architekten in ihrer Arbeit beschäftigten. Um genauer auf diesen Raum einzugehen, kann dabei der Vortrag von Aldo van Eyck in Otterlo zur Hilfe beigezogen werden.

Eine Tür beschreibt van Eyck in diesem Vortrag als einen Ort, der geschaffen sei für ein Ereignis. Am Ende dieses kurzen Manifests über die Türe stellt van Eyck die Frage nach der grösseren Wirklichkeit des Fensters, welche er schliesslich unbeantwortet lässt.¹

Diese Arbeit soll der im Raum stehenden Frage van Eycks nach der Wirklichkeit des Fensters auf den Grund gehen. In der Einleitung wird die Auseinandersetzung der beiden Architekten mit der Arbeit von Gerrit Rietveld in Bezug auf das Element des Fensters veranschaulicht. Kann Gerrit Rietveld, dessen Sohn Jan mit Aldo van Eyck zusammen studiert hat, als eine Art architektonischer Ziehvater gesehen werden?² Im Hauptteil der Arbeit wird der Einsatz des Fensters am Beispiel der Montesso-

ri-Schule in Delft von Herman Hertzberger und dem Waisenhaus in Amsterdam von Aldo van Eyck analysiert. Um die Herangehensweisen der beiden Architekten akkurat miteinander zu vergleichen, wurden drei Eigenschaften des Fensters definiert: beherbergen, verbinden und belichten. Mit Hilfe dieser drei Eigenschaften sowie Rietveld als Ziehvater soll herausgefunden werden, ob aus einem Fenster, das in seiner primitivsten Form lediglich durch ein Loch in der Wand Licht in den Innenraum bringt, ein Ort geschaffen werden kann.

¹ Lüchinger, 1981. S.32 ff., ² van Eyck, 2006. S.105.

Vertiefungsarbeit
– In-depth Study

Das Fenster als Ort

Am Beispiel von Hertzbergers
Montessori-Schule und van Eycks
Waisenhaus

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ABSTRACT

Not long before the present time, architectural drawings were mainly produced with pen and paper. Compare to the precise line weight printed on pale white sheets, hand-drawn plans and sections seem more realistic and reliable. My first impression of Dutch structuralism was the fascination with its architectural drawings. Among all the other modern architectural drawings, I can bluntly say, it's the most aesthetically pleasing work. This new style of drawings thoroughly reflects the ideology behind structuralism architecture and became a powerful tool for the architects to express their philosophy in design. In this paper, I am going to focus on the architectural drawings done by one of the most iconic Dutch structuralists architect Piet Blom. He has produced a large number of drawings and sketches throughout his practice that has not yet been carefully studied. Thanks to Het Nieuwe Institute's archive, I could attempt to analyze the characteristics and intention behind these illustrations. The analysis will reveal the significance of structuralist drawings in the modern architectural movement. Also, by looking into Netherlands' earlier art movement, De Stijl, I attempt to establish the cultural and historical relationship in the development of the particular drawing style. This connection helps to understand the basis of the new representation and allows us to infer the meaning of a new range of colors or dynamic grids that is used in architects' compositions.

Vertiefungsarbeit
– In-depth Study

Dutch Structuralist architectural drawings

Unique representation inspired by De Stijl

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ABSTRACT

During this course, we studied structuralism as a phenomenon and paid special attention to its development in the Netherlands. I did not have the opportunity to study this extremely interesting movement in details, so I decided to examine only one aspect - the relationship between Switzerland and structuralism.

I would like to explain why I have chosen this topic. As I began to delve into the architecture of structuralism, various remarks related to Switzerland or its citizens caught my eye from time to time. While living in Switzerland, I felt that the local mentality and culture changed a bit my outlook on life. These aspects aroused my greatest interest and desire to explore the question of this mutual influence.

Vertiefungsarbeit
– In-depth Study

The Swiss influence on structuralism

The influence of structuralism on the Swiss

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ABSTRACT

The present work is a literary analysis or a commentary of subjective ideologies related to structuralism in architecture expressed by Herman Hertzberger in his last published book 'Architecture and Structuralism: the ordering of space'. For most of his part, influence from philosophy, anthropology and linguistics are an integrated part of Hertzberger's argumentation toward a change in the course of architectural history. This text is subjected to linguistic technicalities that are related to interpretation of meanings in architecture, where Hertzberger's vision and ideas originate from L. Strauss and F. de Saussure, more than we think. Structuralism before it was applied as a notion to architecture was mostly known for its application in anthropology and linguistics. In both cases, it was a definition or a description of an existing phenomenon, and only in architecture, it seems unclear from the writings of Hertzberger whether it is a continuation of a certain type of architecture or is it a philosophical invention that influences architecture directly. Besides the spoken language, architecture is a kind of a language in its own as well, and as Saussure in (Course in General Linguistics) mentions that language and speech are two different things where they influence each other and their existence is dependent on the presence of one another (1966, p.66). Hertzberger preaches exactly the same idea, applied into a physical language. However, the content of this document is not a negative critique by its nature but it raises some important dilemmas such as the question of Hertzberger's structuralism: 'is it a method or an ideology?'; or 'does it make sense to interpret philosophical ideas one to one, such as the twin phenomena into physical forms, and does it make sense as a space, for what they were intended to'?

Vertiefungsarbeit
– In-depth Study

Space for time

A literary critique on Herman Herzberger and his ideas related to structuralism

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ABSTRACT

Die Arbeit beschäftigt sich im Kontext der Qualifizierung von peripheren Stadt-gebieten mit dem gemeindeübergreifenden Leitbild zur Entwicklung der suburbanen Region Luzern-Süd. Dabei geht sie der Frage nach, ob die aus dem Leitbild hervorgehende «SüdAllee» als zentrales, identitätsstiftendes Rückgrat das Potential hat, den Charakter der Region gesamtheitlich zu definieren. Die Arbeit baut auf aktuellen Planungsansätzen zur Qualifizierung von Stadtlandschaften auf und versucht über eine Analyse die bereits realisierten und geplanten Abschnitte im Kontext der Debatte zu verorten. Es zeigt sich, dass die durch das Regelwerk «LuzernSüd» geplanten Teilbereiche und Knoten zumeist ein grosses Potential zur Initiierung von Identifikationsprozessen aufweisen und an vielen Orten den Charakter des Gebiets aufgreifen. Die Funktion der «SüdAllee» als die Region verbindendes Identitätselement ist jedoch noch kaum spürbar. Die Arbeit stellt zum Schluss die Frage, ob nicht die Bahnlinie als zentrales Rückgrat der Region das Potential hätte als ein historisches Identitätselement den Charakter der Region aus dem inneren zu stärken und die einzelnen Teile des heterogenen Gefüges zusammenzuführen, ohne im Widerspruch mit dem Leitbild «LuzernSüd» zu stehen.

Vertiefungsarbeit
– In-depth Study

Das Rückgrat der Identität

Eine Analyse der Region Luzern-Süd
im Kontext der Qualifizierung von
Stadtlandschaften

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FREI THESIS



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BAUTENSTECKBRIEFE – BUILDING PORTRAITS

J.B. Bakema, F. van Gool, Lijnbaan Shopping center, Van Oldenbarneveltplaats 198, 3012 AH Rotterdam	1948–1953
Enrico und Luzia Hartsuyker, Alterswohnheim De Zonnetrap, Spinozaweg / Molenvliet 572, 3076 Lombardijen, Rotterdam	1976–1980
J.B. Bakema, J.H. Van Den Broek, T' Hool housing, Echternachlaan 362, 5625 JG Eindhoven	1968–1972
J.B. Bakema, H. Klopma, Landal De Lommerbergen, Lommerbergen 1, 5953 TT Reuver	1966–1980
J.B. Bakema, J.H. Van Den Broek, Cruise Terminal, Wilhelminakade 699, 3072 AP Rotterdam	1941–2018
J.B. Bakema, J.H. Van Den Broek, Las-Palmas, Las Palmas, 3072 AP Rotterdam	1953
J.B. Bakema, J.H. Van Den Broek, Store Huf, Hoogstraat 183, Rotterdam	1952–1954
J.B. Bakema, J.H. Van Den Broek, Central Library, Hoogstraat 110, 3011 PV Rotterdam	1977–1983
J.B. Bakema, J.H. Van Den Broek, Aula der TU Delft, Mekelweg 1, 2628 CC Delft	1961–1966
De 8, Nagele – Urbanplan 8308 AL Nagele	1948–1954
De 8, Nagele – School Ring 23, 8308 AL Nagele	1948–1954

J.B. Bakema, J.H. Van Den Broek Protestantse Gemeente, Ring 15, 8308 AL Nagele	1948–1954
J. van Stigt, Personalrestaurant TH Twente, Paviljoen, 7521 AN Enschede	1963
H. Hertzberger, Student housing Weesperstraat 3, 1018 DN Amsterdam	1959–1966
H. Hertzberger, De drie hoven erderly housing Louis Bouwmeesterstraat 377, 1065 NS Amsterdam	1964–1974
H. Hertzberger, Diagoon Experimental housing Gebbenlaan 38, 2625 KB Delft	1967–1970
H. Hertzberger, Haarlemmer houttuinen housing Nieuwe Houttuinen 60, 1013 DD Amsterdam	1978–1982
H. Hertzberger, Centraal Beheer hoofdkantoor Prins Willem-Alexanderlaan 651, 7311 NB Apeldoorn	1968–1972
H. Hertzberger, Apollo Schools – Montessori school Willem Witsenstraat 12, 1077 AZ Amsterdam	1980–1983
H. Hertzberger, Montessori school Jacoba van Beierenlaan 166, 2613 JK Delft	1960–1966
H. Hertzberger, Openbare Basisschool Polygoon Hollywoodlaan 109, 1325 KA Almere	1990–1992
H. Hertzberger, Ministry of Social Welfare and Employment Anna van Hannoverstraat 4, 2595 BJ Den Haag	1979–1990
H. Hertzberger, Vredenburg music centre Vredenburgkade 11, 3511 WC Utrecht	1973–1978
Frank van Klingeren, 't Karregat Urkhovenseweg 6, 5641 KE Eindhoven	1971–1972
H. Hertzberger, Watervilla Koperwiekkade 1, 4332 CT Middelburg	1998–2002
H. Hertzberger, Paradijssel housing Paradijsselpark 23, 2904 PA Capelle aan den IJssel	1996–2000
H. Hertzberger, School De Bombardon Simon van Collemstraat 7, 1325 NA Almere	1993–1995
P. Blom, Kubuswoningen Overblaak 70, 3011 MH Rotterdam	1978–1984
P. Blom, De Kasbah Jacques Perkstraat / Zwavertsweg, Hengelo	1969–1973
F. van der Werf, Molenvliet – Open Building Platostraat 109, 3076 BM Rotterdam	1977–2000

A. van Eyck, Orphanage Amsterdam IJsbaanpad 3, Stadionbuurt, Amsterdam	1955–1960
A. van Eyck, Huize padua psychiatric clinic, extension Kluisstraat 32, 5427 EM Boekel	1967–1971
A. van Eyck, Hubertushuis Plantage Middenlaan, 1018 TC Amsterdam	1973–1981
A. van Eyck, Sculpture pavilion relocated at KMM, Houtkampweg 6, 6731 AW Otterlo	1965–1966
A. van Eyck, Pastoor van Ars Church Aaltje Noordewierstraat 6, 2551 GA Den Haag	1963–1969
A. van Eyck, The Netherlands Court of Audit Lange Voorhout 8, 2514 ED Den Haag	1992–1997
A. van Eyck, Tripolis office complex 1076 EE Amsterdam	1990–1994
Jan Verhoeven, Housing Hofdijk Stroveer 51–105 e.o. Agniesebuurt, Rotterdam	1977–1983
A. van Eyck, Bertelmanplein 1075 LT Amsterdam	1947–1978
A. van Eyck, Zeedijk 1075 LT Amsterdam	1955

LIJNBAAN - SHOPPING CENTRE

DUTCH STRUCTURALISM - THE HUMAN BEING AT THE CENTRE OF HOUSE AND CITY

by Hannah Fotheringham



Fig.1. Historical image of Lijnbaan



Fig.2. Aerial view of Lijnbaan

Object	Lijnbaan - Shopping centre
Address	Van Oldenbarneveltplaats 198, 3012 AH Rotterdam
Architect	J.B. Bakema, F. van Gool
Start of planning	1948
Realization	1953

Description

The Lijnbaan shopping centre is renowned for being the one of the first car free shopping precincts, designed by Van den Broek & Bakema in Rotterdam during the post-war reconstruction period. It became an inspiration for many other pedestrian only streets in Europe. Unlike the typical Dutch shopping street of the time, the offices and houses were placed behind the shops in separate buildings rather than above the shops. Resulting in a low and wide street profile as oppose to tall and narrow. There was a range of around 70 luxury shops and the area became very popular not just for shopping but also as a place to take a stroll or meet people. During the 80s, however the luxury shops began to be replaced by take aways and budget clothing stores and the area began to attract hooligans. Which lead a decline in popularity for the area and there were calls at the start of the 21st century to demolish De Lijnbaan. However it was then awarded national heritage status in 2010 thus protecting the building. In 2018 Mei architects won the reconstruction project to restore the shopping Centre to its former glory.

Literature:

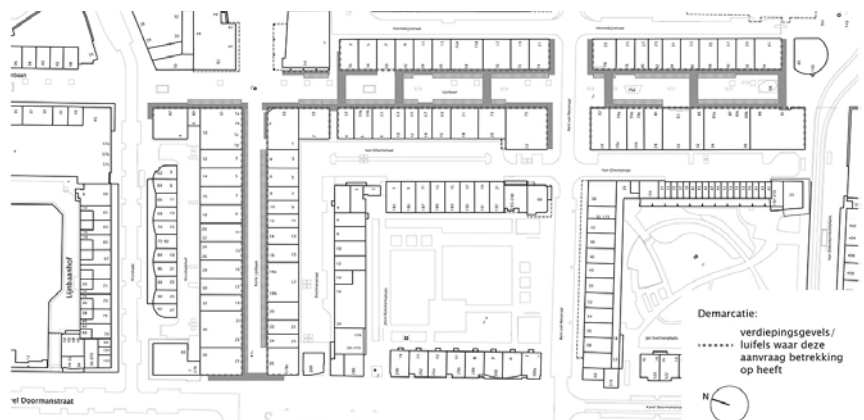
1. Lijnbaan shopping precinct. Taken from: <https://wederopbouwrotterdam.nl/en/articles/lijnbaan-shopping-precinct>
2. Mei architects and planners. Taken from: <https://www.world-architects.com/de/mei-architects-and-planners-rotterdam/project/de-lijnbaan>
3. R, Van der See. Walk the Lijnbaan: decline and rebirth on Europe's first pedestrianised street. Taken from: <https://www.theguardian.com/cities/2018/sep/19/walk-lijnbaan-europe-first-pedestrian-street-rotterdam>.
4. Lijnbaan. Taken from: <https://archello.com/project/lijnbaan>

Photos:

- Fig. 1&6. Taken from: <https://www.world-architects.com/de/mei-architects-and-planners-rotterdam/project/de-lijnbaan>.
- Fig. 2. Taken from: <https://archiveofaffinities.tumblr.com/post/7896857200/van-der-broek-and-bakema-architects-lijnbaan>.
- Fig. 4 & 5. Taken from: <https://www.theguardian.com/cities/2018/sep/19/walk-lijnbaan-europe-first-pedestrian-street-rotterdam>.

Plans:

- Fig. 3. Taken from: <https://www.world-architects.com/de/mei-architects-and-planners-rotterdam/project/de-lijnbaan>.



ALTERSWOHNHEIM ZONNETRAP

NIEDERLÄNDISCHER STRUKTURALISMUS – DER MENSCH IM ZENTRUM VON HAUS UND STADT

by Tobias Furter



Abb 01. Hauptfassade, Alterswohnhuis Zonnetrap

Object	Alterswohnhuis Zonnetrap
Address	Molenvliet 240-640, 3076 CM Rotterdam
Architect	Enrico Hartsuyker und Luzia Hartsuyker-Curjel
Start of planning	1970
Realization	1979

Description

In den 1950er Jahren, kurz nach ihrem Studium an der ETH Zürich, zog das Architektenpaar Hartsuyker-Curjel nach Amsterdam. Dort stellten sie im Jahr 1964 das utopische Projekt Biopolis vor. Der Vorschlag für eine Satellitenstadt ausserhalb Den Haags war eine scharfe Kritik an der damaligen, starren Funktionstrennung im niederländischen Städtebau, er wurde jedoch nie umgesetzt. Sechs Jahre später konnten die beiden Architekturschaffenden aber einzelne Elemente der Utopie, beim Bau des Alterswohnheims Zonnetrap, erneut verwenden.¹ Der Gebäudekomplex ist als eine kleine Stadt konzipiert. Er verfügt über insgesamt 179 Wohnungen sowie unterschiedliche Gemeinschaftseinrichtungen und Mietflächen. Über die drei miteinander verbundenen Gebäudeteile werden die Wohnungen jeweils stufenartig gestapelt. Die so entstehenden räumlichen-, gemeinschaftlichen Beziehungen, werden durch die Anordnung der Wohnräume und mit der Durchmischung der unterschiedlichen Funktionen unterstrichen. So soll die mögliche Isolation von älteren Menschen vermieden werden.²

Literatur: Quellenangaben

[1,3] Dearchitect. https://www.dearchitect.nl/architectuur/artikel/2021/05/serviceflat-zonnetrap-in-rotterdam-luzia-hartsuyker-curjel-en-enrico-hartsuyker-101263082?_login=1 (15.03.22)

[2] Experimenteller Wohnungsbau Rotterdam. <https://experimentelewoningbouw.nl/portfolio/ex-76-263-rotterdam-zonnetrap/> (15.03.22)

Bilder und Pläne:

Abb 01, de Architect. <https://www.dearchitect.nl/architectuur/artikel/2021/05/serviceflat-zonnetrap-in-rotterdam-luzia-hartsuyker-curjel-en-enrico-hartsuyker-101263082> (15.03.22)

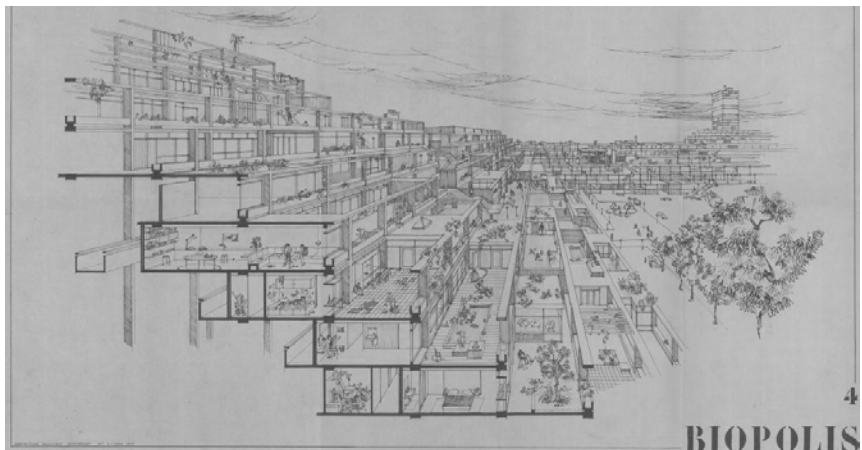
Abb 02, Het Nieuwe Instituut. <https://collectie.hetnieuweinstituut.nl/collectienieuws/internationale-vrouwendag-2020> (15.03.22)

Abb 03, Het Nieuwe Instituut. <https://collectie.hetnieuweinstituut.nl/collectienieuws/internationale-vrouwendag-2020> (15.03.22)

Abb 04, Het Nieuwe Instituut. <https://collectie.hetnieuweinstituut.nl/collectienieuws/internationale-vrouwendag-2020> (15.03.22)

Abb 05, Barzilay+Ferwerda. <https://experimentelewoningbouw.nl/portfolio/ex-76-263-rotterdam-zonnetrap/> (15.03.22)

Abb 06, Barzilay+Ferwerda. <https://experimentelewoningbouw.nl/portfolio/>



HOUSING ,T HOOL AND SHOPPING CENTER WOENSEL

DUTCH STRUCTURALISM – THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by *Tamia Arias-Solomon*



View of the site in its current existence.

Object	Housing and Shopping Center
Address	Echternachlaan 566, 5625 KH Eindhoven, Netherlands
Architect	Van Den Broek & Bakema
Start of planning	1960
Realization	1973

Description

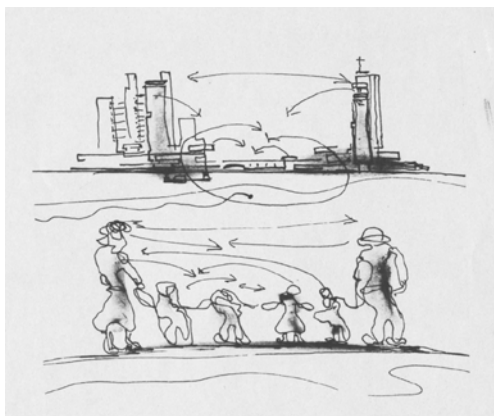
The project began as an initiative by Philips NatLab engineers and their realization that the quality of living is not limited to simply that of individual dwellings. This led to the establishment of a housing corporation (Woon en Wijk) to build a new neighborhood in Eindhoven. After many rejections due to the obscurity of this new project, Van den Broek and J. Bakema were selected. The design for 't Hool ended up with 14 housing types. These housing types were based on the potential resident's preferences regarding their future surrounding environment. The main criteria involved the integration of green area into the housing in order to mimic the urban environment as it expanded.

The inclusion of the inhabitants in the decision-making of the complex allowed them to clearly state their needs in order to create a project that reflected the interests of the generation and current social climate. Alternative solutions that were proposed included: split level apartments, back to back houses, and terrace dwelling.

*Literatur: - Van den Broek & Bakema
Vigorous protagonists of a
functionalist architecture
at the TH Delft
- National Office for Cultural Heritage ('t Hool
an example of Reconstruction)*

*Bild: Broek & Bakema
Arte U'til*

*Pläne: Broek & Bakema
Arte U'til*



LANDAL DE LOMMERBERGEN

NIEDERLÄNDISCHER STRUKTURALISMUS – DER MENSCH IM ZENTRUM VON HAUS UND STADT

by Stefanie Hug



Abb. 01 Naturnaher Aussenraum

Object	Ferienpark De Lommerbergen
Address	Lommerbergen 1, 5953 TT Reuver
Architect	Jaap Bakema mit Herman Klopma
Start of planning	1968
Realization	1968-1980

Description

Literatur:

[1], [3] Center Parcs. *De geschiedenis van Center Parcs: de jaren 1967 tot 1971*. <https://www.centerparcs.nl/nl-nl/blog/insider-tips/de-geschiedenis-van-center-parcs-de-jaren-1967-tot-1971/> (aufgerufen am 08.03.2022)

[2] Archined. *Vakantie als ruimtelijk ordeningsinstrument*. <https://www.archined.nl/2016/07/vakantie-als-ruimtelijk-ordeningsinstrument/> (aufgerufen am 08.03.2022)

[4] Vpro. *Naar buiten*. <https://www.vpro.nl/lees/gids/2015/50/zondag.html/> (aufgerufen am 08.03.2022)

Abbildungen:

Abb. 01, 06:

Residentia projectmakelaars. Vakantiepark De Lommerbergen Reuver. <https://www.residentia.nl/aanbod/vakantiepark-de-lommerbergen-reuver-lb/> (aufgerufen am 21.03.2022)

Abb. 02, 04, 05, 07:

Het Nieuwe Instituut. Het verlangen naar buiten. <https://collectie.hetnieuweinstituut.nl/onderzoek/het-verlangen-naar-buiten/> (aufgerufen am 08.03.2022)

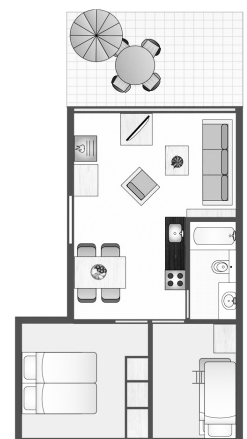
Pläne:

Abb. 03, 08:

Landal GreenParks. Landal De Lommerbergen. Unterkünfte. <https://www.landal.ch/parks/de-lommerbergen/unterkuenfte/> (aufgerufen am 21.03.2022).

In einem Wald in der Nähe des Flusses Maas liegt De Lommerbergen – ein Ferienpark in Reuver in der niederländischen Provinz Limburg. Piet Derksen, der erfolgreiche Sportgeschäftsinhaber von Sporthuis Centrum beauftragte 1968 das führende Architekturbüro Van den Broek en Bakema mit der Verwirklichung seiner Vision der „Villa im Wald“. Bakemas erster Entwurf für das Sporthuis Centrum in Reuver umfasste 30 Villen, die sich um ein Zentrum gruppierten, welches einen überdachten Swimmingpool und einige grundlegende Sportanlagen im Freien kombinierte und ein Layout schuf, das bis heute Bestand hat.

Die Genialität von Sporthuis Centrum, den heutigen Center Parcs liegt in der Kombination von Bakemas Ideen zu architektonischem Massstab, Beziehungen zur Natur und dem Gleichgewicht von Privatsphäre und Gemeinschaft mit Derksens eigenem intuitiven Verständnis dessen, was moderne Familien wollen – Privatsphäre, Komfort und Freiheit.¹



CRUISE TERMINAL

DUTCH STRUCTURALISM - THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Herolind Elezi

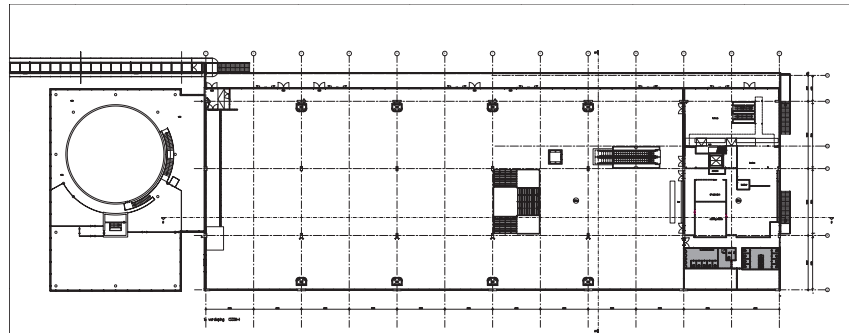


Fig. 1 First floor of Cruise Terminal Rotterdam

Object	Cruise Terminal
Address	Wilhelminakade 699, 3072 AP Rotterdam
Architect	J.B. Bakema, J.H. Van Den Broek
Start of planning	1941
Realization	2018

Cruise Terminal
Wilhelminakade 699, 3072 AP Rotterdam
J.B. Bakema, J.H. Van Den Broek
1941
2018

Description

On May 1940, the German forces has already decided to destroy the center of Rotterdam with high-explosive and bombs, to present this example to the other European cities as well, in order to force capitulation. As a result of this, a large part of the Cruise Terminal building was destroyed.

After the war they started immediately with the reconstruction of the building, which was serving as the arrival and departure hall of the Holland-America Line for the transatlantic passengers.

The architects in charge for the rebuild of the Cruise Terminal were Brinkman, Van den Broek & Bakema, and was built between 1946 and '49. The building consists of two-storey, and the concrete construction of six shell roofs which each shell has the span of 18 meters. The two side walls are fully glazed and are made of large steel façade elements, both on the Wilhelminakade side and on the Holland-Amerikakade. One of the main features of the building has had been these characteristic arches that played a significant role for the building itself on

Literature:

Jozef.V.(2005) *Rotterdam en de architectuur van J.H.van den Broek* (Unpublished doctoral dissertation). Rijkuniversiteit Gronigen, Netherlands

Pictures:

Fig. 2 Original situation of the elevation, in: nrpguldenfenik.nl archive.

Fig. 3 New situation after renovation front view, in: nrpguldenfenik.nl archive.

Fig. 4 New situation inside hall, in: nrpguldenfenik.nl archive.

Fig. 5 Arrival hall Holland-America line, original situation, top010.com

Fig. 6 Original situation inside hall, in: nrpguldenfenik.nl archive.

Fig. 7 Pop up Luggage Structure, Tom David Architects

Plans:

Fig. 1 First floor of Cruise Terminal Rotterdam, in: nrpguldenfenik.nl



LAS PALMAS

DUTCH STRUCTURALISM – THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by *Elvira Díaz de la Serna Carrasco*



street view before renovation

Object	Las Palmas
Address	Las Palmas, 3072 AP Rotterdam
Architect	J.B. Bakema, J.H. Van Den Broek
Start of planning	1951
Realization	1953

Description

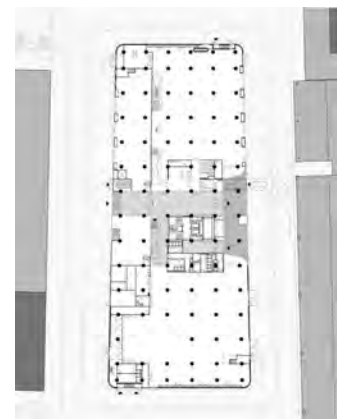
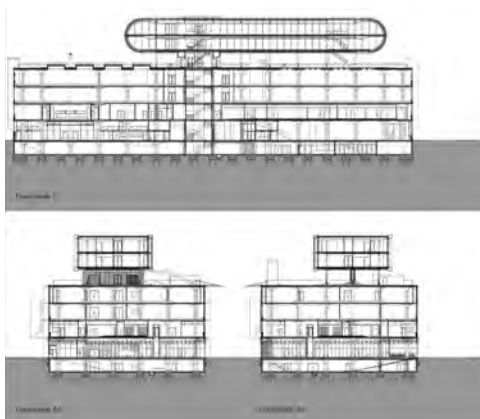
Built-in 1953 to a design by Van den Broek & Bakema, it spent several decades as a workshop and warehouse building for the Holland America Line. In a brief description of the building, we see a passage for trucks on the ground floor; facades built with prefabricated concrete elements and open glass stairs on the facade characteristic of the architecture of Van den Broek & Bakema.

After years of vacancy, the old building was ready for demolition. But EDGE worked hard on the situation and developed a business model. Therefore, after a reform by Benthem Crouwel in 2007, the complex, under the name of Las Palmas, has housed various museums, institutions, and companies in the field of visual culture.

Literatur:
www.architonic.com
www.architectuurgids.nl
www.edge.tech
www.architectureguide.nl
book: 'Architectural guide to the Netherlands'

Bild:
Rook & Nagelkerke
A.J. van der Wal
Jannes Linders
Muurbloem design studio

Pläne: www.archdaily.com



HUF DEPARTMENT STORE

NIEDERLÄNDISCHER STRUKTURALISMUS – DER MENSCH IM ZENTRUM VON HAUS UND STADT

by Sandra Nill



Hoogstraat 1970

Object	Schuhgeschäft HUF
Address	Hoogstraat 181, Rotterdam
Architect	van den Broek en Bakema
Start of planning	1952
Realization	1954

Description

Das Schuhgeschäft HUF wurde 1952-1954 von van den Broek en Bakema während der Zeit des niederländischen Wiederaufbaus geplant und realisiert. Es gilt als eines der schönsten Gebäude Rotterdams dieser Zeit. Im Erdgeschoss befindet sich der Verkaufsraum, der nach neuesten amerikanischen Vorbildern als "gläserne Vitrine" gestaltet ist. Aufgrund lokaler Bauvorschriften war eine gewisse Gebäudehöhe notwendig. So befindet sich über dem Verkaufsgeschoss ein blindes Lagergeschoss und nochmals darüber drei Geschosse mit Büroflächen sowie eine Attikawohnung. Das Gebäude wird durch die Vorhangfassade aus Glas und Stahl und die Stützenkonstruktion geprägt, die eine besondere Flexibilität und Offenheit zum Ausdruck bringen. Ab den 1980er Jahren standen die Büroflächen leer und das HUF Gebäude wurde in den darauf folgenden Jahren immer weiter vernachlässigt. Seit 1999 ist es ein eingetragenes Baudenkmal und wurde 2007-2009 von Wessel de Jonge restauriert.

Literatur:

<https://adoc.pub/met-veel-inzet-weinig-aanpassen.html>, 08.03.2022

<https://www.wdjarchitecten.nl/projecten/huf-gebouw/>, 08.03.2022

<https://wederopbouwrotterdam.nl/en/articles/huf-shop>, 08.03.2022

Bild:

Rotterdam city archives
J.Linders

Pläne:

Wessel de Jonge architecten

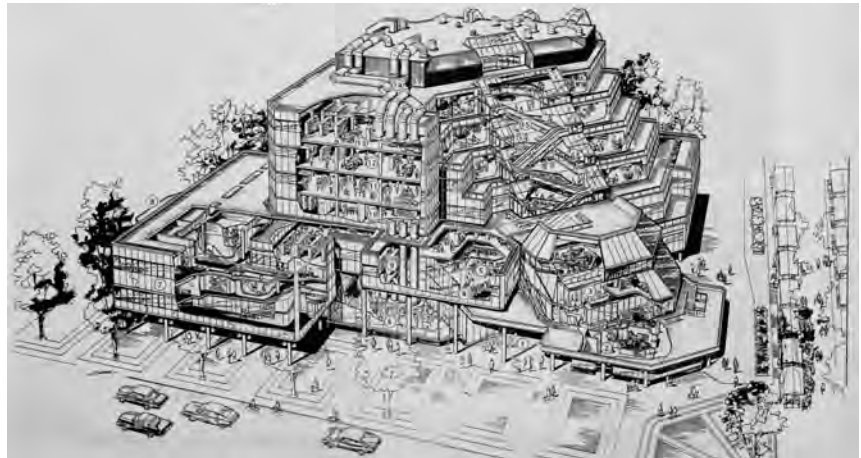


CENTRALE LIBRARY

DUTCH STRUCTURALISM

- THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by *Patřicia Peckov*



1: map with marked building

Object

Address

Architect

Start of planning

Realization

Central Library of Rotterdam

Hoogstraat 110, 3011 PV Rotterdam, Netherlands

Van den Broek en Bakema - Jaap Bakema, Hans Boot

1977

1977-1983

Description

Literature:

- *Creating Public Paradise: Building Public Libraries in the 21st Century*, by Marian Koren, 2004
- *Planning and design of library buildings* by Thompson, Godfrey, 1989

Source:

1 - <https://www.holland.com/global/tourism/destinations/rotterdam/rotterdam-central-library-1.htm>
2 - <https://inhabitat.com/stepped-rotterdam-central-library-opens-its-own-green-roof-and-beehive/>
3 - <https://en.rotterdam.info/locations/central-library/>
4 - <http://schatkamer.nai.nl/en/projects/centrale-bibliotheek-rotterdam>
5 - <https://fromplacetoplace.travel/netherlands/rotterdam/places-to-visit-in-rotterdam/>
6 - <https://architectenweb.nl/nieuws/artikel.aspx?ID=51043>

Pictures:

1: <https://sk.mapy.cz/zakladni?x=4.4890921&y=51.9211620&z=19&q=central%20bibliotheek%20rotterdam>
2: https://teamv.nl/wp-content/uploads/2021/11/Rene_Castelij_n_Centrale_Bibliotheek_vernieuwing_verkleind-e50faabb-1440x844-c-default.jpeg
3: https://cdn.myportfolio.com/645ef5b2f82fdea-f819364ecd9d55d6c/e3f1f748-f833-43ae-b0bc-fb171bd99e68_rw_1920.jpg?h=0e17776df223beeb-b3a48a457a079645
4: <https://www.bibliotheek.rotterdam.nl/54-vrijwilligers-nieuws>
5: <https://www.bibliotheek.rotterdam.nl/werkenbij/vacatures/31-vacatures>

Plans:

4: *Planning and design of library buildings* by Thompson, Godfrey, 1989, p. 52
5: https://www.holland.com/upload_mm/e/d/e/40715_fullimage_Rotterdam_central_library_%C2%A9_NAI_Collection.jpg

In 1977, the city issued a competition for a new library. The winning design was by the Rotterdam studio Van den Buok en Bakema. The proposal worked with openness, seeking to provide a welcoming environment that was centrally located and accessible to everyone.¹ They created one of the largest libraries in the Netherlands, offering more functions to the visitor than just lending books. (On 24,000 m² there is a library, a theater, a cafe, a bookstore and lecture halls.)¹

The architects chose a cube shape with a truncated corner that opened the building towards the city. This open side is dominated by a facade with a so-called glass waterfall, behind which the escalator space is located. The rest of the facade is made up of strip windows, which are complemented by white sills.²

Another dominant feature of the exterior are the yellow air-conditioning ducts that run the facade downwards from the roof.²

The interior is dominated by the space of vertical roads and the ceiling lamps are the most distinctive elements.²



AULA DER TU DELFT

DUTCH STRUCTURALISM – THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Alina Shegay



Aula der TU Delft, front view.

Object	Aula der TU Delft
Address	Mekelweg 5, 2628 CC Delft, Niederlande
Architect	J.H. Van Den Broek, J.B. Bakema, J. Stokla
Start of planning	1961
Realization	1966
Description	

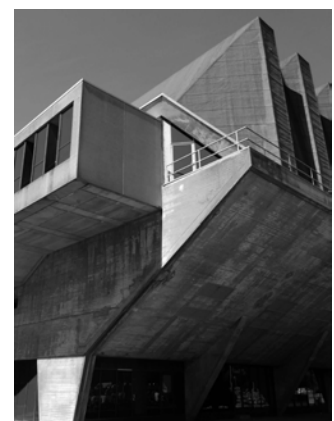
The Aula der TU Delft, designed by J. Bakema, Van Den Broek, and J. Stokla, became one of the most outstanding brutalist building examples of the Dutch Welfare sector. In the post-war period, the TU Delft was outgrowing its' capacity due to the access to upper education among the middle to working classes. Thus, the new Aula reflected some of the 'constants' of Broek & Bakema's works, such as monumentality, urban contextualization, functional flexibility with the spatial flow, and the democratic values of the architecture projects. Monumental, yet flexible volume accommodated three sectors: the great auditorium, the public central body, and the conference rooms on different floors. Importantly, the structural organization of the building visually highlights the functional articulation through the relation between its parts. It also combines various technological and innovative construction methods of reinforced pre-stressed concrete that were a relevant material choice among the Structuralists at that time. The Aula of TU Delft was a critical articulation of the social exchange and the relationship of in-between into the morphological expression.

Literatur:

1. Joan Moreno Sanz 'The Architecture of the Dutch Welfare State: The TU Delft Aula (1948-1968)'. Pg. 117-124.
2. Van Den Broek en Bakema 'Architektur-Urbanismus'. Pg. 68-71.

Bild: Stefano Perego

Pläne: Van Den Broek en Bakema 'Architektur-Urbanismus'



NAGELE - STADTPLANUNG

NIEDERLÄNDISCHER STRUKTURALISMUS – DER MENSCH IM ZENTRUM VON HAUS UND STADT

von Rebecca Baer



Luftaufnahme Nagele

Objekt	Nagele - Stadtplanung
Adresse	8308 AL Nagele, Niederlande
Architekt	De 8
Planungsstart	1947
Realisierung	1952-1958
Beschrieb	

Der Ort Nagele ist eine von 10 Dorfneugründungen im Gebiet des Noordoostpolder, welches 1942 zur Landgewinnung für die wachsende Bevölkerung der Niederlande und zur landwirtschaftlichen Nutzung trockengelegt wurde. Die Siedlung wurde ab 1947 als theoretisches Modell im Rahmen des CIAM von der Architektengruppierung 'De 8' geplant und nach mehreren Überarbeitungen bis 1958 umgesetzt.

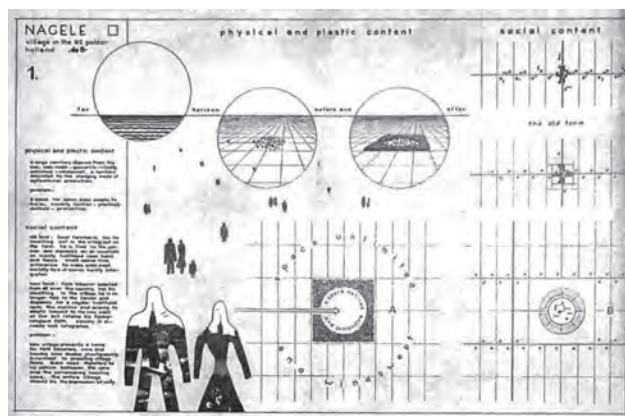
Während die anderen Neugründungen von Traditionalisten der Delfter Schule entworfen und gebaut wurden, reagierte man in Nagele auf die Kritik an der idyllischen und nostalgischen Ausformulierung und dem damit einhergehenden konservativ gedachten Lebensstils der vorhergehenden Siedlungen. Die Planung des Ortes folgte drei Grundprinzipien: 1. eine nicht-hierarchische, sozial durchmischte Organisation mit rund 500 Wohneinheiten unterschiedlicher Grösse, 2. ein Windschutz aus Bäumen und dichter Bepflanzung als räumliche Begrenzung des Dorfes zum Polder, und 3. eine offene grüne, parkähnliche Mitte mit Gebäuden für die Gemeinschaft wie Schulen und Kirchen.

Literatur / Pläne:

McCarter R. (2015). Aldo van Eyck. London: Yale University Press.
Abad E. Nagele, A green room without a roof.
Aus: https://www.academia.edu/24798372/Nagele_a_green_room_without_a_roof (13.03.22)

Bilder:

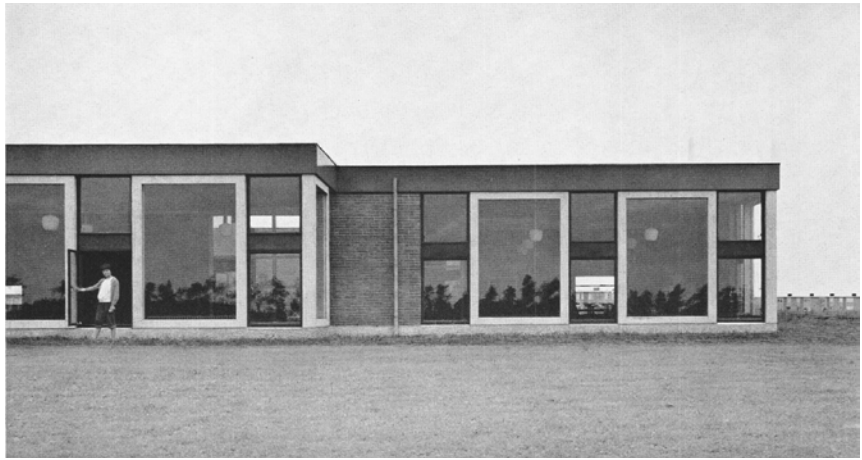
<http://dmelian.blogspot.com/2014/08/nagele-aldo-van-eyck.html> (15.03.22)
https://www.flickr.com/photos/nai_collection/9451963326/ (15.03.22)
<https://beta-office.com/wp-content/uploads/016-nagele/> (15.03.22)



NAGELE - SCHULHÄUSER

NIEDERLÄNDISCHER STRUKTURALISMUS – DER MENSCH IM ZENTRUM VON HAUS UND STADT

by Ivo Wielander



Klassenzimmerfront

Objekt	Schulhäuser Nagele
Adresse	Ring, 8308 AL Nagele, Niederlande
Architekt	De 8, Aldo van Eyck, H. P. D. van Ginkel
Start der Planung	1948
Realisation	1955
Beschreibung	

Das Dorf Nagele im Nord-Ost-Polster ist eine Siedlung für 1'500 Bewohner, die ex novo auf gänzlich unberührtem Boden geplant und gebaut wurde.

Die Architekturgruppe «De 8» hat sich die Aufgabe gestellt, buchstäblich aus dem Nichts ein Lebensmilieu für eine noch nichtexistierende Gemeinschaft zu schaffen.

Das Nutzungsprogramm wurde der Architekturgruppe von der Direktion der Zuiderzeewerke gestellt. Es umfasste 360 Wohnungen, Läden, Werkstätten, 3 Schulen, 3 bis 5 Kirchen, ein Wirtshaus, ein Hotel, ein Rathaus, eine Feuerwehr, einen Friedhof, Sportplätze und ein Industrieterrain beim Hafen.

Die genannten 3 Schulhäuser liegen allesamt an ein und derselben Grünfläche und wurden nach den gleichen Plänen erbaut. Dies ist mehr als nur erstaunlich, da die Schulhäuser den drei rivalisierenden Richtungen – römisch-katholisch, reformiert und staatlich zuzuweisen sind und in Holland die Rivalität zwischen Kirche und Staat heftiger als in manch anderen Ländern war.

Literatur:

Hartsuyker, Hendrik. *Wohnungsbauten im Rahmen der Stadtplanung*. 1961. <https://www.e-periodica.ch/digbib/view?pid=wbw-002:1961:48::928#929> (18.03.2022)

Eyck, Aldo van. *Schulbauten - Altersheime*. 1958. <https://www.e-periodica.ch/digbib/view?pid=wbw-002:1958:45::851#852> (20.03.2022)

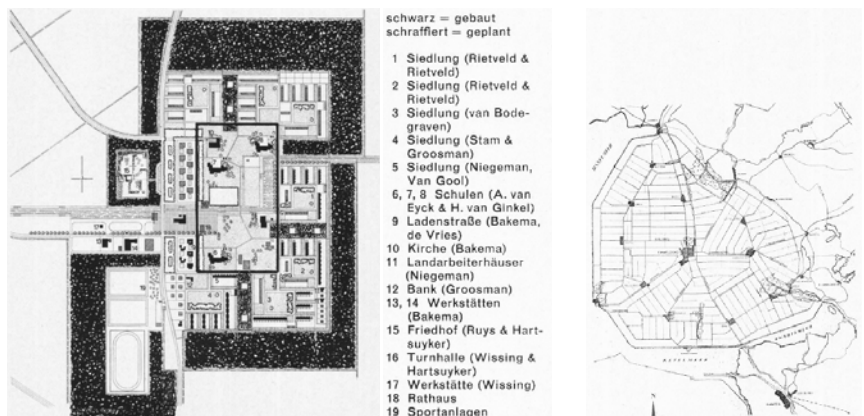
Bild:

Spiess, Amsterdam

Pläne:

Wohnungsbauten im Rahmen der Stadtplanung. 1961. <https://www.e-periodica.ch/digbib/view?pid=wbw-002:1961:48::928#929> (18.03.2022)

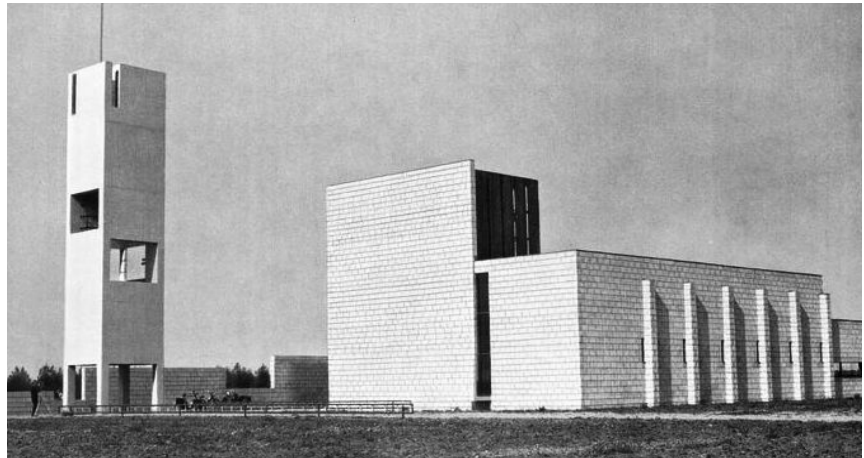
Schulbauten - Altersheime. 1958. <https://www.e-periodica.ch/digbib/view?pid=wbw-002:1958:45::851#852> (20.03.2022)



REFORMED CHURCH OF NAGELE

DUTCH STRUCTURALISM – THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Kate Owens



Northeast view of the reformed church.

Object	Reformed Church of Nagele
Address	Ring 15, 8308 AL Nagele, Netherlands
Architect	J.B. Bakema, J.H. Van Den Broek
Start of planning	1959
Realization	1960
Description	

The City of Nagele hosted a variety of different churches for each denomination. The Reformed Church of Nagele, opened in 1960, was designed by J.B. Bakema of the architecture firm an den Broek en Bakema. The design is in alliance with the overall Dutch modernist style found throughout the village. Bakema was incredibly deliberate with his design ensuring to include symbolism inside and out. The building is set back from the road creating an intermediate space that encourages reflection before entering. One must enter through the “gate” of the bell tower before entering the enclosed courtyard of the church. It was an element of importance for Bakema to create a space without threshold. This idea was to encourage everyone to enter no matter their denomination. Upon entering the courtyard, the walls gradually increase in size until reaching the highest point of the vestibule. This is to represent growing towards heaven. Once inside, that highest point which is made of glass, shines down onto the pulpit representing the heavens reaching back down to earth. This type of symbolism is incorporated into each possible detail.

Literature: 1. *Building & People – Nagele*. (n.d.), from https://nagele.nl/bezoek_nagele/architectuur-gebouwen/. (Accessed 16 March 2022). 2. *Nagele Gereformeerd*. (2020, January 1). Emmeloord.Info. <https://www.emmeloord.info/nagele-geref/>. (Accessed 16 March 2022). 3. *Nagele, Ring 15—Gereformeerde Kerk—Reliwiki*. (n.d.). Retrieved 15 March 2022, from https://www.reliwiki.nl/index.php/Nagele,_Ring_15_-_Gereformeerde_Kerk (Accessed 16 March 2022). 4. Savaş, A & Van der Mei, A. (2018). *Nagele: A Modern Village on New Land*. Blom, A. M. & Timmer, P.J. (Eds.), *Diamonds in Sahara: Metu Lodgings Documented* (pp. 41-52). Ankara/Türkiye: Middle East Technical University, Faculty of Architecture.

Photographs: 3. *Organ Center Foundation*, 2. *SOW Kirk Nagele*, 5. *Schwartz, Johannes. Uncube*. <https://www.uncube-magazine.com/blog/13578527>, 6. <https://germanpostwarmodern.tumblr.com/post/152200135457/reformed-church-1958-60-in-nagele-the>, 7. <https://www.pinterest.com/pin/563653709614099451/>, 8. <https://www.pinterest.com/pin/335518240968156859/>, 9. <https://twitter.com/areasvellas/status/1212538243142557697>.



PERSONALRESTAURANT TH TWENTE

DUTCH STRUCTURALISM

– THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Sigrid Lyche Strandvoll



The pavilion as seen when arriving

Object	University staff restaurant
Address	Dienstweg 5, 7522 ND Enschede, The Netherlands
Architect	Joop van Stigt (1934 - 2011)
Start of planning	1962
Realization	1963

Description

By the main entrance to the campus area of Twente University in the Netherlands is the wooden pavillion by the Dutch architect Joop van Stigt situated; a restaurant dimensioned for 500 workers. The site is secluded among trees and natural vegetation, which provides a more private and calm atmosphere despite the busy campus surrounding it.

The structure is a wooden prefabricated construction of laminated redwood and spruce; standing on a stone plinth with a tall stone chimney rising up from the one storey structure. Van Stigt introduces a three-dimensional modular building system made up by the wooden columns and beams, the starting base figure being a greek cross. By adding or omitting walls, the rythm on the square figures determines the spaces created. More closed functions as kitchen and wardrobes are located in the core of the plan, whilst open spaces for eating surrounds it. Van Stigt designed the restaurant furniture himself, providing a holistic atmosphere in the pavilion.

Literature, photos and drawings:

Domínguez, M., 2018. Entre racionalidad geométrica y sensibilidad material. Joop van Stigt en Twente. Madrid: Estoa

Steenhuis, M., 2014. Joop van Stigt, architect: Working from a flexible structure 1960 – 1985. SDO. Available at: <https://burovanstigt.nl/wp-content/uploads/2018/10/Personeelskantine-Werken-vanuit-flexibele-structuur.pdf>



STUDENT HOUSING

DUTCH STRUCTURALISM – THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Christian Kottathu



Student Housing street view

Object	Student housing
Address	Weesperstraat 3-59, 1018 Amsterdam
Architect	Herman Hertzberger
Start of planning	1959
Realization	1966

Description

The case study represents one of the first works designed by Herman Herzberger. The establishment is located on the short end of a right-angled triangle plot along Weesper street. The building is a simple and precise concrete volume composition of four distinct substrates organized in columns, beams, and floor slabs.

The lower part includes public facilities dedicated to the students, such as the student association, academic bookstore, dining hall, and café. Above it, the building offers accommodations for university students of the city of Amsterdam. The facility can house 250 students divided into apartments with 18 or 6 bedrooms programmatically disposed around the service spaces at the center. The units are served by three stairs that connect the seven floors.

On the fourth floor are allocated nine flats for couples accessible by a covered pedestrian space that divides the middle part of the building from the upper part.

Literatur:

Lüchinger, Arnulf. *Herman Hertzberger: Buildings and Projects*. Arch-Edition, 1987.

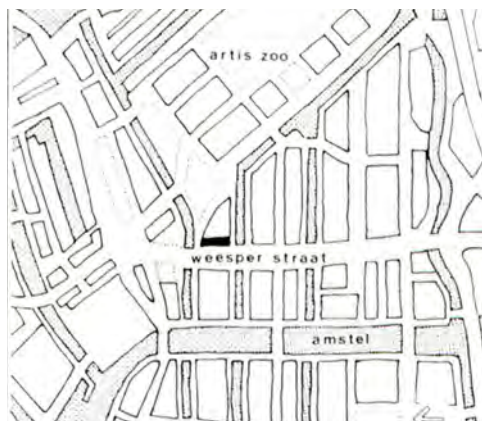
Röling, Wiek. *Studentenhuis, Weesperstraat*. *Goed Wonen*, no. 9, 1995.

Bild:

Röling, Wiek. *Studentenhuis, Weesperstraat*. *Goed Wonen*, no. 9, 1995.

Pläne:

Röling, Wiek. *Studentenhuis, Weesperstraat*. *Goed Wonen*, no. 9, 1995.



DE DRIE HOVEN ELDERLY HOUSE

DUTCH STRUCTURALISM - THE HUMAN BEING AT THE CENTRE OF HOUSE AND CITY

by Pavla Nesvadbikova

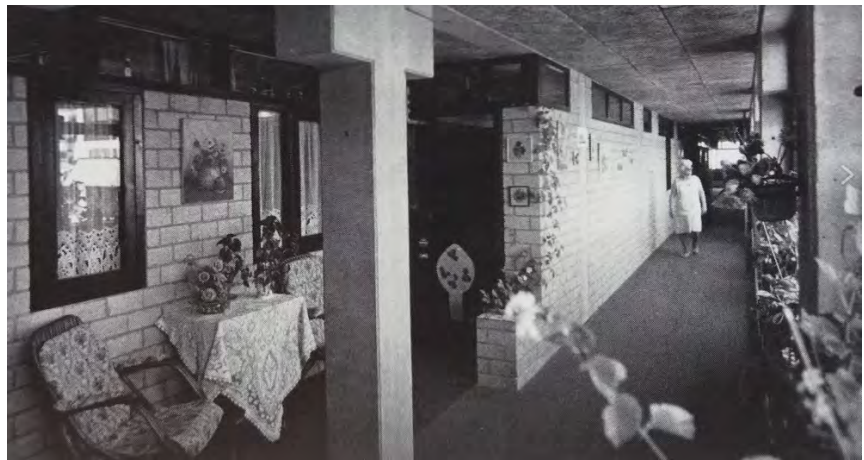


Fig. 1 corridor designed as a residential street

Object	Elderly House
Address	Louis Bouwmeesterstraat 377, Amsterdam, Netherlands
Architect	Herman Hertzberger
Start of planning	1964
Realization	1974
Description	

The De Drie Hoven residential complex is designed for people with physical or mental disabilities who have reached a certain age. The intention was to create an environment in which the residents, despite their limited mobility, have the opportunity to form social bonds. This need was then articulated in the concept of the building as a small city in the form of a free structure branching into four wings.

The original concept, however, consisted of units grouped around three courtyards. Buildings with a number of floors ranging from two to six architecturally culminated in the centre of the complex. However, this solution proved too rigid and inflexible, and under the influence of changing perceptions of elderly care, the concept was dropped, and an open and flexible plan was started again. The design process was focused on achieving maximum inchangeability, which was conceived in the concept of an urban miniature. Overall programme was translated into a spatial scheme and was laid onto the "objective" grid marked by the towers hiding communication cores and then adjusted to the dimensions of the building site. Fixed towers bring order to the struc-

Literatur:

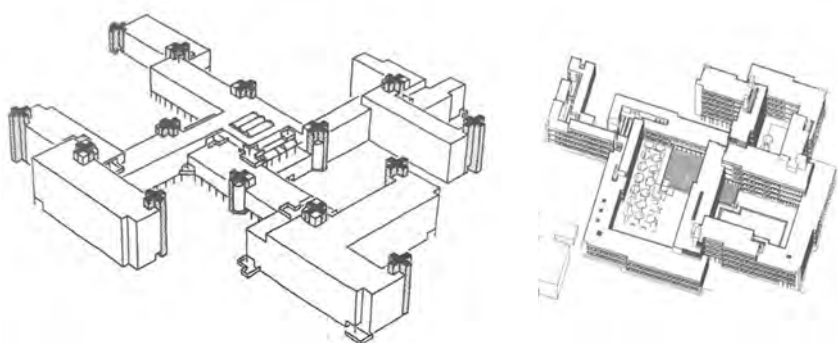
Lessons for Students in Architecture,
Hertzberger, Herman
hiddenarchitecture.net/de-drie-hoven/

Bild:

Fig 2, 3, 6, 7- Herman Hertzberger
Fig 1,8 - Willem Diepraam
Fig 4,5 - hiddenarchitecture.net/de-drie-hoven/

Pläne:

Fig 2, 3, 7 - *Lessons for Students in Architecture,* Hertzberger, Herman
Fig 4, 5 - hiddenarchitecture.net/de-drie-hoven/



DIAGOON EXPERIMENTAL HOUSING

DUTCH STRUCTURALISM - THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by AHH



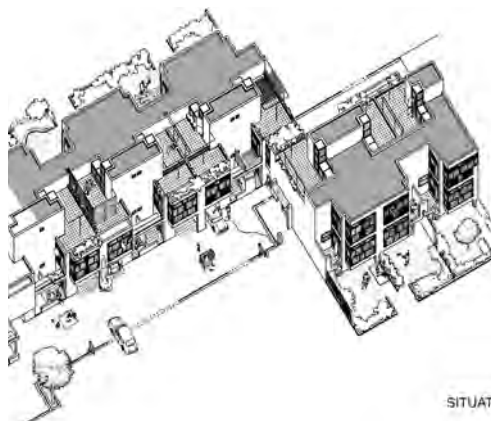
Fig. 1 First floor of Cruise Terminal Rotterdam

Object	Diagoon experimental housing
Address	Gebbenlaan 38, 2625 KB Delft
Architect	Herman Hertzberger
Start of planning	1967
Realization	1970

Description

The idea determining the carcass houses, 8 prototypes of which have been built in Delft, is that they are in principle incomplete. The plan is to a certain extent indefinite, so that the occupants themselves will be able to decide how to divide the space and live in it, where they will sleep and where eat. If the composition of the family changes, the house can be adjusted, and to a certain extent enlarged. What has been designed should be seen as an incomplete framework. The skeleton is a half-product which everyone can complete according to his own needs.

The house consists basically of two fixed cores with several different half-storey-high levels constituting the living units, which can accommodate a variety of functions: living, sleeping, study, play, relaxing, dining etc.



Literature:
McCarter, R. Herman Hertzberger. Rotterdam, 2015

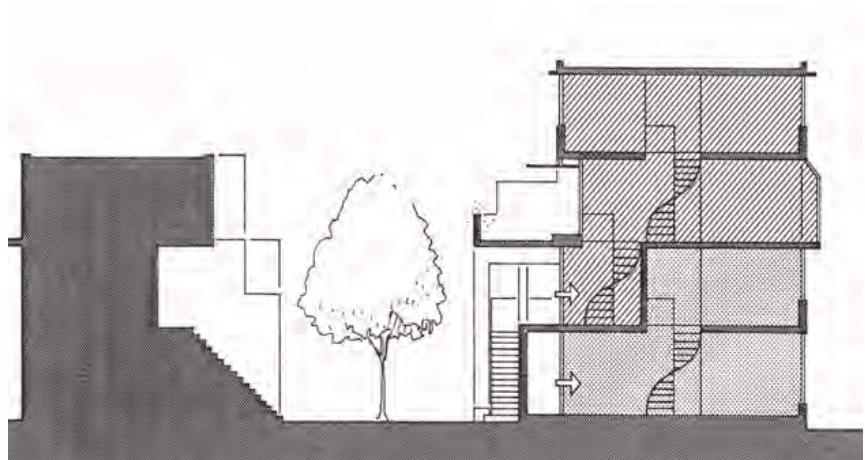
Pictures:
Beton Verlag, Willem Diepraam and Johan van der Keuken

HAARLEMMER HOUTTUINEN HOUSING

DUTCH STRUCTURALISM

- THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Amir Zejnnullahu



Section Drawing representing the concept of space interaction

Object

Address

Architect

Start of planning

Realization

Haarlemmer houttuinen housing

Nieuwe Houttuinen 60, 1013 DD Amsterdam, Netherlands

Herman Hertzberger

1978

1982

Description

Haarlemmer Houttuinen Housing in Amsterdam is surrounded by the Haarlemmerstraat to the south and a busy road to the north. It was built by Hertzberger in the north, by Van Herk & Nagelkerke in the south. A pedestrian street connects the two blocks to Haarlemmerstraat through two gateways also designed by Van Herk.

It is Hertzberger's housing block with its projecting piers and balconies that gives rhythm to the street. The four piers mark the entrances to the maisonettes and support the balconies of the two upper floors. The dwellings are all accessed from the street, and the balconies and gardens look out onto the street. Fine-tuning of scale is achieved by tiles in the centre of the lintels and the granite pads supporting them, and by the different sized square windows which synopate rhythms and let in light along the ceilings where window heads have been kept closed to give intimacy within.

Literatur: Hertzberger, H. (1963) *Flexibility and polyvalency*; in: *Ekistics*, April 1963, Vol. 15, No.89; *Athens Center of Ekistics*; S. 238-239 (EN)

Herman Herzberger. *Architecture and Structuralism: The ordering of space*, 2016

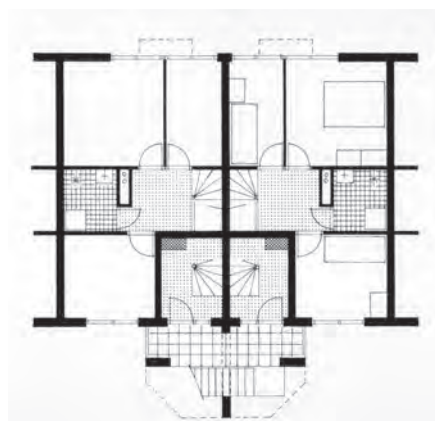
Pictures:

Fig. 3,4,5 Ger van der Vlugt

Fig.6. <https://www.flickr.com/photos/kris-to/5782410511>

Pläne: Herman Hertzberger

<https://www.miesarch.com/work/1507>



CENTRAAL BEHEER OFFICES

DUTCH STRUCTURALISM

– THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Naïm Jelinek



Fig. 01 birds view of the building 1970s

Object	Centraal Beheer hoofdkantoor, Office building
Address	Prins Willem-Alexanderlaan 651, 7311 NB Apeldoorn
Architect	Hermann Hertzberger
Start of planning	1968
Realization	1972

Description

“An office building as ‘work space’; for 1000 people designed as a single articulated unit, consisting of sixty tower-like cubes connected on each floor by over-passes.” -Herman Hertzberger on the official AHH website¹.

The building is made up of four parts connected by a neutral zone containing circulation, toilets and plant rooms, this neutral zone was designed to feel like an urban street. Three of the parts are used for open offices and cubicles, the other containing such general spaces as a restaurant, recreational areas and public functions. With its flexible, ‘unfinished’ structure containing almost no interior walls, the building can be easily added to.

Centraal Beheer is built up using a repeated standard pattern, which collaborates closely with the supporting structure to fix the zoning of the interior. The basic formal unit is a square of 9 x 9 m. subdivided by a cruciform zone into four corner areas of 3 x 3 m. The latter are

Literature

- 1 - Hermann Hertzberger via ahh.nl
- 2 - Hermann Hertzberger interview on AHH Architects youtube channel 12.03.2022
- 3 - Architectural Guide to the Netherlands, Piet Vollaard, Paul Groenendijk, 2006

Fig.01/03 photos by Willem Diepraam and Herman van Doorn via ahh.nl 12.03.2022

Fig 02/04/05/06 Plans by AHH (Hermann Hertzberger architects) via ahh.nl 12.03.2022

Fig.07 Photo by Nationaal Archief via smow.com 12.03.2022



APOLLO SCHOOLS

DUTCH STRUCTURALISM – THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Cristina Alen Mendes



Fig. 1 Aerial view

Object	Apollo Schools - Montessori and Willemspark School
Address	Willem Witsenstraat 12, 1077 Amsterdam
Architect	Herman Hertzberger
Start of planning	1980
Realization	1983

Description

The Apollo Schools, Apolloscholen in Dutch, are two primary schools with kindergartens in Amsterdam. One school follows the Montessori teaching method, and the other is a traditional public school.¹ The two buildings are almost identical in the plan and section and are positioned on the land lot with a 90° rotation from each other, generating two different playgrounds. The structure consists of 16 concrete pillars holding concrete beams. The building's envelope is then finished by bricks infill walls. All the materials used for the construction are left exposed, both on the outside and inside. Every building has a total of 8 classrooms divided on three split floors. The centrally positioned atrium is the heart of this design and on the first floor, this becomes a double-height space with a tribune. Natural light flows in to this space through the windows near the stairs and a skylight. The threshold between the classrooms and the atrium is particularly important. The Dutch door allows to simultaneously be connected and separated from the common area and the niche beside the entrance is a space for the children to seek a more secluded space to focus without isolating.

Literatur: 1 - 3, McCarter, R. Herman Hertzberger. Rotterdam, 2015, p. 149 - 159

Bild: Fig. 1, 4 - 6, unknown. Retrieved from: <https://www.ahh.nl/index.php/en/projects2/9-onderwijs/113-apollo-schools> (15.03.22)

Fig. 7, unknown, Retrieved from: <https://www.architectural-review.com/archive/campaigns/the-big-rethink/the-big-rethink-part-4-the-purposes-of-architecture> (21.03.22)

Pläne: AHH Architects. Retrieved from: <https://www.ahh.nl/index.php/en/projects2/9-onderwijs/113-apollo-schools> (15.03.22)



MONTESORRI SCHOOL, DELFT

NIEDERLÄNDISCHER STRUKTURALISMUS – DER MENSCH IM ZENTRUM VON HAUS UND STADT

by Sara Bjørnevik



Aerial view of the building after the first two construction phases were finished.

Object	Montessori School, Delft
Address	Jacoba van Beierenlaan 166, 2613 JK Delft
Architect	Herman Hertzberger
Start of planning	1960
Realization	Original building 1960-1966, Extensions periodically 1968-2009

Description

The Montessori education is an individual centered education philosophy, and in 1960 Herman Hertzberger designed a school in Delft, Netherlands. The building is structured almost like a small neighborhood. A central public street in the middle surrounded by the classrooms on both sides. Both the public corridor and the more personal classrooms provided many nooks and corners that allow the children to embrace their individual needs (whether that would be sitting alone reading or playing together). One of Hertzberger's main beliefs is that any building should be able to change according to the needs of its time. The school initially entailed four classrooms but this was already expanded to five in the initial building phase, and over the next fifty years it doubled in size. The initial street like school, grew to become almost like a small city.¹

Each of the small classrooms are situated individually around the meandering public space and has a unique relationship to the outside

*Literatur: Hertzberger, H., 2016. Lessons for students in architecture. Reprint. 7th ed. Rotterdam: Nai010 uitgevers.
Van Bergeijk, H., 1997. Herman Hertzberger. Basel, Boston: Birkhauser.
Hertzberger, H. and Swaan, A., 2009. The schools of Herman Hertzberger. Rotterdam: 010.*

*Bild:
Article written by Hidden Architecture, 2017. Photos of the Delft Montessori School. [image] Available at: <<http://hiddenarchitecture.net/montessori-school/>> [Accessed 18 March 2022].*

Hic Architectura, 2017. Images of the Delft Montessori School. [image] Available at: <<http://hicarquitectura.com/2017/01/herman-hertzberger-delft-montessori-school/>> [Accessed 18 March 2022].

*Pläne:
Hic Architectura, 2017. Images of the Delft Montessori School. [image] Available at: <<http://hicarquitectura.com/2017/01/herman-hertzberger-delft-montessori-school/>> [Accessed 18 March 2022].*



DE POLYGON, PRIMARY SCHOOL

DUTCH STRUCTURALISM

– THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Jindřich Pavlišta



01_classrooms on each side with central common spine_west view

Object

Address

Architect

Start of planning

Realization

Openbare Basisschool Polygon

Hollywoodlaan 109, 1325 KA Almere

Herman Hertzberger

1990

1992

Description

Herman Hertzberger and his Architectuurstudio HH which was opened in 1960 designed many schools in their history. In many of his projects, we can see a pattern of grouping classes around one main hall. Opposite to this usually central common space in this project, the classrooms are all connected to one elongated space referred by Hertzberger as a “street”.

In the middle of the open “street”, space is located a two-story strip structure that can transform its usage by sliding panels. These rooms serve specialized activities or other individualized education purposes. This in-between space is the center of social interactions happening between children and creates a secondary more informal learning space in contrast to formal classes. The classes are partially opened and connected to the main “street” through glazed openings. This openness between the inner “street” and class creates a feeling of connectivity and encourages for working outside of the class and still belonging to it. In-between space effect is supported by the light coming through a roof windows placed overhead in the arched roof.

Literature:

Herman Hertzberger, *Space and the Architect: Lessons in Architecture 2*, 2000
<http://www.architectureguide.nl>
Lecture by Herman Hertzberger
Centre for Fine Arts, Brussels, 06.10.2016

Pictures:

01_Rook & Nagelkerke;
02-03_Herman Hertzberger;
04_GMNL google street view;
05_Durr Hans Jan

Plans:

06_core.ac.uk/download/pdf/4406661.pdf
07_Herman Hertzberger



MINISTRY OF SOCIAL WELFARE AND EMPLOYMENT

DUTCH STRUCTURALISM - THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by *archipicture.eu*



Fig. 1 First floor of Cruise Terminal Rotterdam

Object	Ministry of Social Welfare and Employment
Address	Anna van Hannoverstraat 4-6, The Hague
Architect	Herman Hertzberger
Start of planning	1979
Realization	1990

Description

Herman Hertzberger was commissioned with this design in 1979, and the building was realized from 1985 to 1990 according to a reduced program. The site for this building covers the length of a complete city block and is adjacent to multiple railway lines, both for long distances and local trains on its southeast. Herman Hertzbergers solution prevents an expansive horizontal plan and organizes the building into 16 independent octagonal tower buildings. These smaller units are arranged along both sides of a long and top-lit central hall. The 12 tower buildings nearest to the railway lines raise to a height of eight storeys, allowing to have views over the railway embankment. The workspaces in each of the tower buildings are organized within the four volumes created by the four circulation arms extending from the centre and connected to the adjacent unit at the outer ends. On the outer side of the building, the ends of the cruciform circulation connects to the glass-walled fire stairs, while towards the central hall the arms are connected to mechanical duct shafts and the vertical circulation. The building structure is based on a diagonal square grid.



Literature:
McCarter, R. Herman Hertzberger. Rotterdam, 2015

Pictures:
archipicture.eu

VREDENBURG MUSIC CENTRE

DUTCH STRUCTURALISM

– THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Paul Baumann Sepulveda



Fig. 01 Vredenburg Music Centre Exterior Façade.

Object	Vredenburg Music Centre
Address	Vredenburgkade 11, 3511 WC Utrecht
Architect	Herman Hertzberger, Franz Bos Reitz, Rijk Rietveld
Start of planning	1973
Realization	1978
Description	

The Vredenburg Music Centre was built in the city of Utrecht, Netherlands, in an area that used to be the old citadel of Vredenburg in the 16th Century, therefore receiving its name. The building was merged with the Tivoli Oudegracht building, forming the new TivoliVredenburg Complex, opened in 2014. The Great Hall was conserved from Hertzberger's original project. It is important to add, that Herman Hertzberger also took part in the development of this transformation process.

The original project consisted in two halls and its characteristic surrounding areas: the Great Hall, with a 1700 seats capacity; the Small Hall with a 300 seats capacity; and the continuous buffering foyer and arcades around the main Hall. Its form is meant to be an articulation of smaller volumes, so it doesn't stand out in its context like a bigger unit volume would do: "Rather than trying to distinguish itself as a temple of music, the building, situated on a market square, seeks to be absorbed by the city, informally, as an integral part of it." ¹ On that matter, the

Literature:

[1] Hertzberger, Herman: *Articulations*. Munich, 2002. Pg. 88.

[2], [3], [4] McCarter, Robert: *Herman Hertzberger*. Rotterdam, 2015. Pg. 377 - 389.

Figures:

Fig. 01, Herman Hertzberger.

Fig 02, Fotobureau 't Sticht.

Fig 03, Herman Hertzberger.

Fig 07, Willem Diepraam.

Figs. 01, 02, 03, 07 retrieved from <https://www.ahh.nl/index.php/en/projects2/13-cultuur/119-vredenburg-music-centre-utrecht>
Fig 08, retrieved from Hertzberger, Herman: *Articulations*. Munich, 2002.

Plans:

Fig 04, 05: retrieved from McCarter, Robert: *Herman Hertzberger*. Rotterdam, 2015.

Fig 06: retrieved from <https://www.ahh.nl/index.php/en/projects2/13-cultuur/119-vredenburg-music-centre-utrecht>



HET KARREGAT, EINDHOVEN

NIEDERLÄNDISCHER STRUKTURALISMUS – DER MENSCH IM ZENTRUM VON HAUS UND STADT

by Blanca Roma Gómez



Common sitting area in 1973

Object	Het Karregat
Address	Urkhovenseweg 6, 5641 KE Eindhoven, The Netherlands
Architect	Frank Van Klingeren
Start of planning	1970
Realization	1973

Description

In 1970, the municipality of Eindhoven was developing a new and experimental neighborhood called Herzenbroeken where they were looking for new ways to live and work in a community. Frank Van Klingeren, with a clear ideology in multi-functional and public buildings, was the architect asked to design what would be this controversial and revolutionary community center for the inhabitants of Herzenbroeken, one of the first ones in the Netherlands.

The center consisted of an integrative and versatile space to host such services as a school, a library, medical offices, a bar, and food stores. The building's architectural identity was characterized by a flat roof supported by a simple steel pillar structure in the form of umbrellas. This open floor offered great adaptability to the community.

The building has been transformed three times after the first design. The first renovation was in 1977, to attempt to settle criticisms in the open school, the second in 1990, for economic reasons, and finally the office Diederendirix in 2010, wanting to return to Klingeren's identity.

Literatur:

van den Bergen, M., & Volgaard, P. (2001). *The Biggest Living Room in the Netherlands. Frank van Klingeren's Karregat in Eindhoven, 1970-1973. 1970s Revisited, OASE, (57), 62-73.*

van den Bergen, M., & Volgaard, P. (2003). *Hinder En Ontkloterrinf, Architectuur En Maatschappij in Het Werk Van Frank Van Klingeren. Published, NL: 010.*

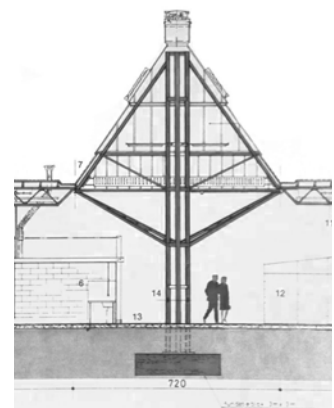
Bild:

Article written by Hidden Architecture, 2017. *T Karregat Centre. Available at: <<https://hiddenarchitecture.net/t-karregat-centre/>> (Accessed 15 March 2022).*

Article written by Arte Útil, archive nr: 268. *Het Karregat. Available at: <<https://www.arte-util.org/projects/het-karregat/>> (Accessed 14 March 2022).*

Pläne:

Floor plan: van den Bergen, M., & Volgaard, P. (2001). *The Biggest Living Room in the Netherlands. Frank van Klingeren's Karregat in Eindhoven, 1970-1973. 1970s Revisited, OASE, (57), 62-73.*



WATERVILLA

DUTCH STRUCTURALISM – THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Kristian Aalerud



Watervilla exterior

Object

Address

Architect

Start of planning

Realization

Watervilla

Koperwiekkade 1, 4332 CT Middelburg

Architectuur Studio Herman Hertzberger - AHH

1998

2002

Description

The first design from AHH of a watervilla dates back to 1986 and the prototype in Middelburg was completed in 2002. The 160 m² villa consists of three levels with different choices in fitting them out. All the levels have generous terraces and it's possible to reorient the villa, allowing to change the view, depending on where the sun shines and get the best energy consumption/saving ratio¹.

The floating system consists of six interconnected steel offshore pipes with a diameter of about two meters. The pipes, with a thickness of ten millimetres, are built to last and need little maintenance. The hollow pipes can simply be adjusted and trimmed using ballast until the requisite draught and stability are achieved². The floating base supports a three-story steel structural frame with steel-plate and concrete floors. The first floor contains two bedrooms, a bathroom and a storage space. Upstairs is the open living and dining room and a kitchen. On the third level is a large open space that can be used as an office or spare bedroom. To keep the costs low, the prototype includes standard heating and cooling systems³.

Literature:

AHH, *Watervilla Middelburg*, <https://www.ahh.nl/index.php/en/projects2/14-woningbouw/68-watervilla-middelburg> (07.03.2022)

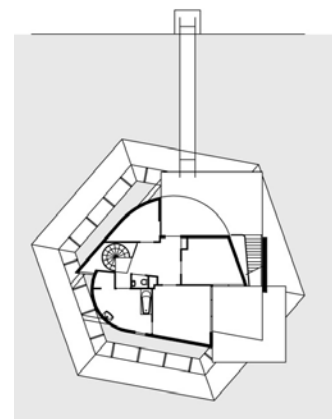
Barreneche, R., *Watervilla*, <https://www.architecturalrecord.com/articles/12262-watervilla> (06.03.2022)

Chen, Y., (2007) *Sustainable Environments, Bioregionalism*

Pfammatter, U., (2012) *Bauen im Kultur- und Klimawandel, Präventive Strukturen und Szenarien in Überschwemmungsgebieten*

Photos: Patrick Fransen, Herman van Doorn and Katja Eftting, <https://www.ahh.nl/index.php/en/projects2/14-woningbouw/68-watervilla-middelburg> (07.03.2022)

Drawings: Architectuurstudio Herman Hertzberger - AHH, <https://www.ahh.nl/index.php/en/projects2/14-woningbouw/68-watervilla-middelburg> (07.03.2022)



SPUI THEATRE CENTRE AND HOUSING, THE HAGUE

DUTCH STRUCTURALISM – THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Laura Rubio



Interior building photo

Object	Cultural complex and housing
Address	Spui 191, 2511 BN, The Hague
Architect	Herman Hertzberger
Start of planning	1986
Realization	1993

Description

Located at the center of The Hague, the building occupies an entire city block, and it constitutes an important element in the concentration of cultural buildings in the area. Its location circumstances lead to the configuration of an inner space with urban qualities, in which cultural activities and housing are combined, and with it, the construction of a whole community. The entire program contains two auditoriums, four cinemas, a visual art gallery, a café and restaurant, a foyer suitable for informal performances, shops and 76 dwelling units. The volume of the project consists of $\frac{1}{4}$ circumference, in which an interior scenery is created, containing the view and opening it towards the nearby 17th century church.

A dynamic architectural inner landscape is defined as a triangular space embedded between the lateral volumes. This space is not a result of the emptying of a massive volume, but a cohesive element in which the architect has arranged a type of organization able to embed discontinuous and heterogeneous elements, endowing this interior space with a tension capable of maintaining a geometric balance.

Literatur: Quellenangaben

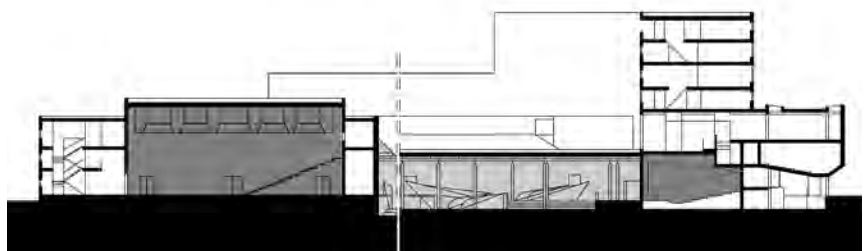
- De theaters van Herman Hertzberger, Arthur Wortmann, 2005
- Architectuur en structuralisme, Herman Hertzberger, 2014
- Structuralism and Social Space, Herman Hertzberger, 2012

Images: Quellenangaben

- AHH - Herman Hertzberger Architecture Office, Official Website.

Plans: Quellenangaben

- AHH - Herman Hertzberger Architecture Office, Official Website.



DE-BOMBARDON SCHULE

NIEDERLÄNDISCHER STRUKTURALISMUS – DER MENSCH IM ZENTRUM VON HAUS UND STADT

by Florian Oertli



Ansicht Südfassade

Object	De-Bombardon Schule, Almere
Address	Simon van Collemstraat 7, 1325 NA Almere, Niederlande
Architect	Hermann Hertzberger
Start of planning	1993
Realization	1995

Description

Die Schule liegt im Südosten auf einem grosszügigen Grünstreifen zwischen zwei Wohnvierteln der Stadt Almere. In unmittelbarer Nachbarschaft befindet sich eine Sekundarschule und eine Religionsgemeinschaft.

Die Schule wurde für Kinder mit Lern- und Verhaltensproblemen gebaut. Sie enthält 14 Klassenzimmer und weitere Räume für Bewegungstherapie, Förderunterricht und Ähnliches. Da es in erster Linie darum ging, ohne Korridore auszukommen, stossen alle Räume an den Innenhof, einen leicht erhöhten Platz, der durch einige Stufen gebildet wird. Er kann den unterschiedlichsten Zwecken dienen; die Treppen verleihen ihm einen dynamischen Zug. Das Schulgebäude ist sehr kompakt gehalten. Die Turnhalle ist fast vollständig in den Haupttrakt geschoben. Im ersten Stock läuft eine Galerie rund um das Schulgebäude, die von den Kindern als Pausenspielplatz genutzt werden kann.

Literatur:

Hertzberger, Herman; de Swaan, Abram: *Alle Scholen. 010 Publishers. Rotterdam 2009.*
ISBN 978-90-6450-646-8

Van Bergeijk, Herman: *Herman Hertzberger.*
Birkhäuser Verlag. Basel 1997.
ISBN 3-7643-5698-7

Van den Driessche, Marten: *The Journey of the Children. OASE Journal Nr. 72*
NAi Publishers, 2007
ISBN 90-5662-583-2

Bild:

Jan Derwig / *Architectural Photography / BFN*
Geert Mol
Herman van Doorn

Pläne:

Van Bergeijk, Herman: *Herman Hertzberger.*
Birkhäuser Verlag. Basel 1997.
ISBN 3-7643-5698-7
S. 161-163



KUBUSWONINGEN

DUTCH STRUCTURALISM – THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Hilke Horsthemke



Yellow tilted cubes: Piet Blom's *Kubuswoningen* in Rotterdam

Object

Address

Architect

Start of planning

Realization

Kubuswoningen

Overblaak 70, 3011 MH Rotterdam, The Netherlands

Piet Blom

1977

1984

Description

Literatur: Quellenangaben

[1] [4] Pascucci, Denim: "AD Classics: Kubuswoningen / Piet Blom" 05 Mar 2014. *ArchDaily*. Accessed 18 Mar 2022. <<https://www.archdaily.com/482339/ad-classics-kubuswoningen-piet-blom>> ISSN 0719-8884

[2] Van der Putt, Pierijn: *Oude Haven Rotterdam*. In: *DASH | Delft Architectural Studies on Housing* (2018), Nr. No. 05 (2011): *The Urban Enclave*, S. 132-139

[3] *Cube House*. URL <http://architectuul.com/architecture/cube-house>. - abgerufen am 2022-03-14. — *Architectuul.com*

[5] [6] [8] Van den Heuvel, Dirk: *Piet Blom's Domesticated Superstructures*. In: *DASH | Delft Architectural Studies on Housing* (2018), Nr. No. 05 (2011): *The Urban Enclave*, S. 57-69

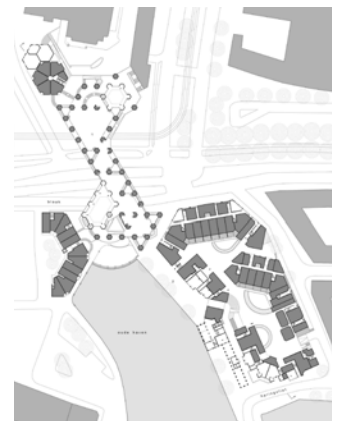
Bild: Fotograf

Fig. 1, 5, 6, 7, 8: Hengeveld, Jaap. *Piet Blom (Amersfoort, the Netherlands)*: Jaap Hengeveld Publications, 2007) / Photographs: Dirk Verwoerd (*Archdaily*)

Pläne: Quellenangaben

Fig. 2, 3, 4: Hengeveld, Jaap. *Piet Blom (Amersfoort, the Netherlands)*: Jaap Hengeveld Publications, 2007) in: Van der Putt, Pierijn: *Oude Haven Rotterdam*. In: *DASH | Delft Architectural Studies on Housing* (2018), Nr. No. 05 (2011): *The Urban Enclave*, S. 132-139

The Kubuswoningen are a group of 38 innovative houses designed in 1984 by Piet Blom in Rotterdam, the Netherlands. These houses, unlike typical housing, decorate the Old Harbour like a "forest of trees," with yellow, tilted timber-frame skeletal cubes elevated on slender hexagonal pylons, made of concrete pillars and cellular brick walls. Each housing cube has three floors and a total floor size of 106 m². The ground level is used as a living area, with a kitchen in one corner and a toilet and study area in the other. Two bedrooms and a bathroom are located on the intermediate floor above and the top level has a small triangular pyramid-shaped area that can be utilized as a child's bedroom or a sun deck. These houses are situated above the Blaak traffic node, which forms a "pedestrian bridge" that connects the nearby market and Bakema's library to the Oude Haven. The houses are part of a development complex that also includes *Blaaktoren*, a 13-story hexagonal apartment tower shaped like a pencil, and *Spaanse Kade*, which is a series of terraced buildings that encircle an interior courtyard.^{1,2}



DE KASBAH (HOUSING)

DUTCH STRUCTURALISM – THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Rinor Rushiti



Fig. 1 Aerial view of De Kasbah, Hengelo

Object	De Kasbah
Address	Boekerij 1, 7552 KS Hengelo, Netherlands
Architect	Piet Blom
Start of planning	1969
Realization	1973

Description

The “Kasbah”, as the name indicates, translates the spatial complexity of the characteristic village typology of North Africa into 20th-century Dutch housing in practice. In contrast to the “reaching into the future” mentality of technocratic planning that guided the post-war reconstruction of Netherlands, the project emphasis lays more on a certain orientation towards the past, hoping to rediscover archetypal elements of man and translate these experiences into modern architecture.¹

The overall concept behind the Kasbah dates back to the mid-1960s when Blom presented his study ‘Wonen als Stedelijk Dak’ (‘Living as Urban Roof’) his reaction against the mono-tony of the terraced houses and flats of the time. Blom was taking a stand against the rigid separation of functions and the belief in rationality which had determined the structure of the early post-war residential districts.² He was searching for an urban living and working environment in which social contacts were promoted, which he later applied in the Kasbah project – that the homes are situated in a closely-packed configuration on the first floor.

Literatur: Quellenangaben

[1] Lüchinger, A., *Structuralism in architecture and urban planning*, K. Krämer, Stuttgart, 1981
[2] Volume 35: *Everything Under Control - Open Structures: an Introductory Dossier on Dutch Structuralism*, Archis, Amsterdam, 2013

Bild: Fotograf

Fig. 1-3 BLOM 33, *Archief, Collection of Het Nieuwe Instituut*, Rotterdam, 2000

Pläne: Quellenangaben

Fig. 4-7 BLOM 33, *Archief, Collection of Het Nieuwe Instituut*, Rotterdam, 2000



MOLENVLIET - OPEN BUILDING

DUTCH STRUCTURALISM

– THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Lukas Delfosse



Img. 01: Molenvliet, birds eye view

Object

Address

Architect

Start of planning

Realization

Open building social housing project

Stellingmolen 191, 3352 BG Papendrecht, Netherlands

Frans van der Werf in association with KOKON Architects

1974

1978

Description

Literature:

[1] van der Werf, Frans: *Projects: Molenvliet*. 2017. <http://www.vdwerf.nl/molenvliet.html> (16.03.22)

[2] *The council of open buildings: Molenvliet* 2021. <https://councilonopenbuilding.org/molenvliet> (16.03.22)

[3] *A theory of Architectural Practice: Open building Interpreted by Baumschlager & Eberle*. 2005. http://www.open-building.org/archives/booklet2_small.pdf (18.03.22)

[4] van der Werf, Frans: *what is open building?* <http://www.vdwerf.nl/> (16.03.22)

Image:

Img. 01:

Habraken, N, John: *Open Building as a condition for industrial construction*. <https://www.irbnet.de/daten/iconda/CIB13469.pdf> (21.03.22)

Img. 02, 03, 04, 06, 08:

van der Werf, Frans: *Projects: Molenvliet*. 1978. <http://www.vdwerf.nl/molenvliet.html> (16.03.22)

Img. 05:

A theory of Architectural Practice: Open building Interpreted by Baumschlager & Eberle. 2005. http://www.open-building.org/archives/booklet2_small.pdf (18.03.22)

Img. 07:

van der Werf, Frans: *Open Building Design Manual*. Received by e-mail from Frans van der Werf (17.03.22)

After winning a town planning competition for the new district 'Wilgendonk' (2400 dwellings), Frans van der Werf introduced an alternative study for high rise buildings: a new typology of high density housing in a low rise fabric. The "Open Building" typology consisted of a simple infill-able base-building structure of parallel piers, floors and roofs around courtyards. The Ministry of Housing nominated this typology "Experimental", in order to understand how regulations limit the evolution of housing in the Netherlands. Then a housing association "Papendrecht" ordered this 'Experimental' design for 80 dwellings for rent, leading to a 123 units project, applied within the same area.¹

Molenvliet consists primarily of apartments and some commercial spaces. Each building has a central courtyard and is designed to exhibit traditional Dutch architecture, including pitched roofs, a wooden façade, and wooden windows. Molenvliet was designed to maximize customization for its residents.²



AMSTERDAM ORPHANAGE

DUTCH STRUCTURALISM – THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Irina Pochkaenko

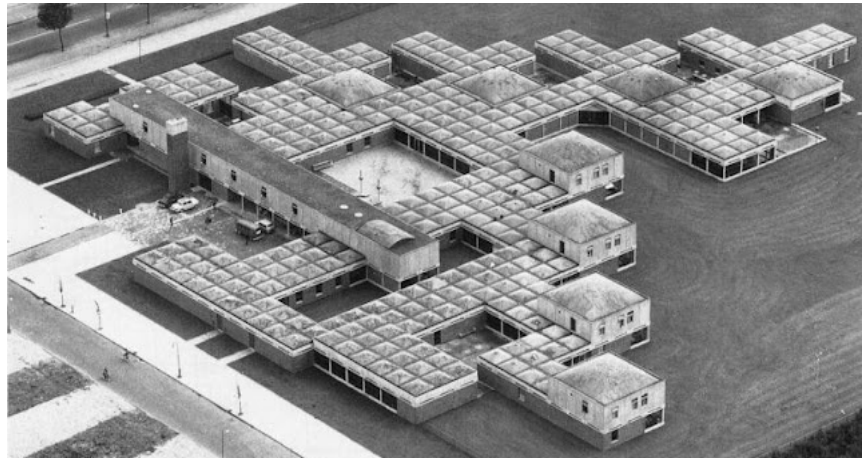


Fig. 1 Areal view

Object	Amsterdam Orphanage
Address	IJsbanaapad 3B, 1076 CV Amsterdam, Netherlands
Architect	Aldo van Eyck
Start of planning	1955
Realization	1960

Description

Aldo van Eyck (1918-1999) was a Dutch architect, writer, and teacher who helped redefine Modern architecture in the second half of the 20th century. Amsterdam Orphanage was designed by him in 1955 and built in 1960, providing a home for 125 children ranging in age from infancy to twenty years old, and forty staff, twelve of whom would live on the premises. The building was located on the southwestern outskirts of Amsterdam.

The building is constructed from modules in two sizes: a smaller size for residential areas with a square grid of 3.36 x 3.36 meters and a larger size of 10.8 x 10.8 meters, consisting of nine square modules for public spaces, each topped with a dome. The houses of the oldest and youngest children overlap in the middle of the plan, where the six to ten-year-olds house is directly opposite the ten to fourteen-year-olds house, and the oldest orphanage is in the northern part of the plan, and the youngest orphanage is in the southern part of the plan.

Literature:

[1] Aldo van Eyck, Robert McCarter, Yale University Press, 2015. Pg. 85-113.

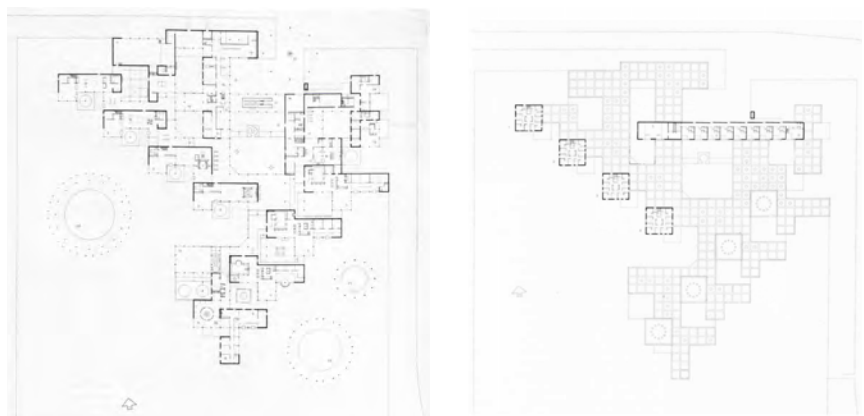
Images:

[Fig. 1] URL: <http://architecturetoday.blogspot.com/2012/12/amsterdam-orphanage-netherlands.html> (Stand: 21.03.21)

[Fig. 4-7] Aldo van Eyck, Robert McCarter, Yale University Press, 2015. Pg. 85-113.

Plans:

[Fig. 2, 3] Aldo van Eyck, Robert McCarter, Yale University Press, 2015. Pg. 85-113



HUIZE PADUA PSYCHIATRIC CLINIC, EXTENSION

DUTCH STRUCTURALISM

- THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Shane Lounibos



Aerial view of "L" building

Object	Housing for the chronically mentally ill
Address	Kluisstraat 32, 5427 EM Boekel, Niederlande
Architect	Aldo and Hannie van Eyck
Start of planning	1980
Realization	1989

Description

This three pavilion extension of the Huize Padua Psychiatric Clinic was designed by Aldo and Hannie van Eyck in 1980 and completed in 1989. The three pavilions primarily serve as housing for the chronically ill as well as providing supplementary services for the inhabitants and employees of the clinic. The pavilions were designed based on the concept of "incomplete rectangles" providing open spaces and visual connection to the exterior for the occupants of the space. Semi-circular voids penetrate the rectangles on the exterior facade as a way of filling the individual apartments with the outside space and personal connection to the exterior environment. Larger circular voids through the centers of the rectangles form interior courtyards. Two of the pavilions which form "L" shapes are open pavilions allowing for the free entry and exit of the occupants to the outdoor spaces, while the largest pavilion is made up of two rectangular forms connected by an enclosed corridor which serves the more controlled occupants and works as a closed circuit in which access to the outside is controlled by the employees of the clinic.

Literatur:

Van Eyck, Aldo and Hannie (1988). "Architecture of caring", in *Architectural Review*, no. 183.

Van Eyck, Aldo, and Hannie (1990). "Forum fellowship: recent work by some Amsterdam architects", in *Architectural Review*, no. 187.

Mens, N., Wagenaar, C. (2010) "Healthcare Architecture in the Netherlands" NAi Publishers, Rotterdam

Bild: Fotograf

Hospitecnia

<https://hospitecnia.com/proyectos/clinica-psiquiatrica-padua-boekel-paises-bajos/>

Pläne: Quellenangaben

Site Plan:

Aldo + Hannie van Eyck Foundation:

<http://vaneyckfoundation.nl/2018/11/23/padua-psychiatric-clinic-boekel-1980-9-with-hannie-van-eyck/>

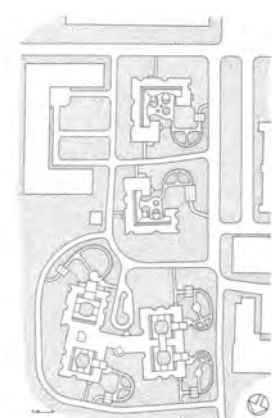
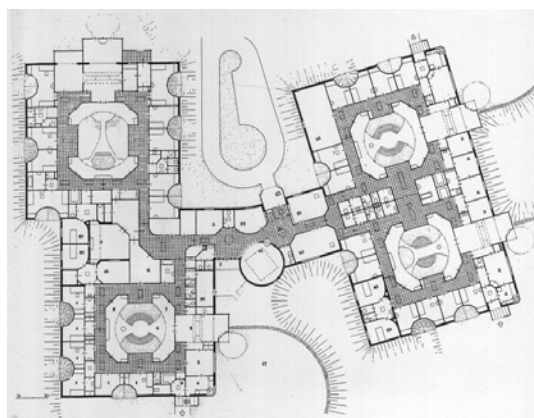
Floor Plan:

Mens, N., Wagenaar, C. (2010) "Healthcare Architecture in the Netherlands" p.218

Axonometric:

Hospitecnia

<https://hospitecnia.com/proyectos/clinica-psiquiatrica-padua-boekel-paises-bajos/>



HUBERTUS HOUSE

DUTCH STRUCTURALISM

– THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Maria Emelyn Vicencio



Fig. 1 Hubertus House, Amsterdam

Object

Address

Architect

Start of planning

Realization

Hubertus House

Plantage Middenlaan, 1018 TC Amsterdam, Netherlands

Aldo Van Eyck

1973

1981

Description

Frontages along the Plantage Middenlaan share similarities in terms of form and style. It is impossible not to notice the Hubertus house, which stands out because of its rainbow hues and steel construction. In comparison to the solid masonry of other structures, it provides transparency and sense of depth.¹

Hubertus House was founded by Hubertus Association, an organization that provides support, counseling, and temporary shelter to single mothers and their children on the basis that they are momentarily unable to function on their own. To improve their accommodation, the association bought a former synagogue next to two buildings that they owned. They demolished it to build a new one and renovate the ones next to it. Among all names that came up, they chose to work with Aldo Van Eyck to realize the design. Van Eyck worked closely together with Hubertus to meet its goal of providing a comfortable environment to the users and desired balance between ‘open’ and ‘closed’ along with other specific requirements.²

Literatur: Quellenangaben

[1] P. Buchanan (1982). *Street urchin: Mothers' House, Amsterdam*, by Aldo van Eyck. Retrieved 14.03.2022 from <https://www.architectural-review.com/buildings/street-urchin-mothers-house-amsterdam-by-aldo-van-eyck>
[2] H. Hertzberger (1982). *Aldo van Eyck : Hubertus house. Amsterdam*.

Bild: Fotograf

Fig.1 Photo from the Aldo+Hannie van Eyck Foundation website: <http://vaneyckfoundation.nl/2018/11/21/hubertushuis-amsterdam/>
Fig. 2-3 H. Hertzberger: *Aldo van Eyck : Hubertus house. Amsterdam, 1982*

Pläne: Quellenangaben

Fig. 4-7 H. Hertzberger: *Aldo van Eyck : Hubertus house. Amsterdam, 1982*



SCULPTURE PAVILION

DUTCH STRUCTURALISM THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Jacopo Ruggeri



view into three galleries

Object
Address
Architect
Start of planning
Realization

Sculpture Pavilion
Sonsbeek Park, Arnhem
A. van Eyck
1965
1966

Description

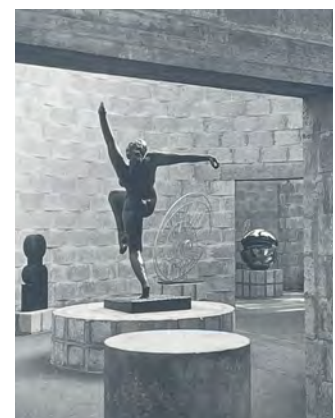
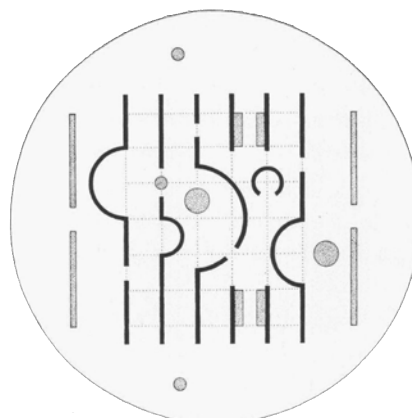
The temporary pavilion is an open-side gallery designed to shelter the more delicate pieces of the fifth sculpture exhibition in Sonsbeek Park. Erected on the site of a previous pavilion by Gerrit Rietveld for the same purpose, the building is surrounded by a dense forest on three sides. An ambivalent perimeter, almost solidly closed on two sides and very permeable on the other two, girds a labyrinth of 4 meters high minimalist apses and parallel walls of crude B2 concrete bricks on a grid of 244 × 244 cm. A concrete plinth and floating translucent roof ephemerally frame the volume on the closed side; by contrast, the five 2.3m wide exhibition spaces are all in view on the open side. Openings in the solid walls allow for diagonal views that expand the visitors' encounters with the single sculptures, thus, creating that inevitable clashing and convergence of people and artefacts. Small steel posts on the wall tops lift the reinforced nylon covering. Filtering through, a shadowless light enhances the tactile qualities of the sculptures.¹

Literatur: ^{1,3} McCarter, R. & Eyck, A. (2015). Aldo van Eyck. Yale University Press.

² Sonntag, F. A. & Coso, R. M. (2019). Ephemeral narrative structures. Resonances and echoes of the Sonsbeek pavilion by Aldo van Eyck in the Hanover pavilion by Peter Zumthor. ZARCH : Journal of Interdisciplinary Studies in Architecture and Urbanism, 13, 120–135.

Bild: McCarter, R. & Eyck, A. (2015). Aldo van Eyck. Yale University Press.

Pläne: Bokern, A. (2006). Labyrinthische Klarheit : Rekonstruktion von Aldo van Eycks Sonsbeek-Pavillon im Skulpturengarten des Kröller-Müller-Museums Otterlo. Werk, Bauen + Wohnen (Swiss ed.), 93(6), 75.



PASTOOR VAN ARS CHURCH

DUTCH STRUCTURALISM – THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Solhae Yoon



The Sanctuary

Object	Pastoor van Ars Church
Address	Aaltje Noordewierstraat 6, 2551 GA Den Haag
Architect	A. van Eyck
Start of planning	1963
Realization	1969

Description

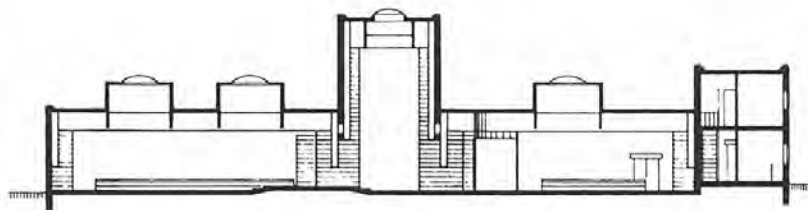
Aldo Van Eyck had designed three churches in his architecture career: The Moluccan Church in Deventer, completed in 1990, “Wheels of Heaven”, the un-built one, and the Pastoor van Ars Church completed in 1969. These three churches he designed portrays a notion of “open space” in plan with a notion of “closed space” in section, and this, I believe, produces very special sensations.

In 1963 Aldo van Eyck was commissioned to design the Roman Catholic Church of the parish of Pastoor van Ars in Loosduinen, a district in the north-west of the Hague near to the sea. It required a gathering space of four hundred believers with an additional community room. Also, flexibility in room planning is required since two hundred more worshipers came in the summer months when Hague attracts beach holiday tourists. The site, which measures only 48 x 40 meters, is located on the edge of the city district bordered by a wooded area and separated by a canal from the adjacent road. Most of this façade is solid, characterized by the vertical extension of the transept, the

Literatur: The Church in The Hague by Aldo van Eyck: The Presence of the Fibonacci Numbers and the Golden Rectangle in the Compositional Scheme of the Plan, Fernández-Llebrez, José ; Fran, José María Nexus network journal, 2013-04-30, Vol.15 (2), p.303-323; Basel: Springer Basel

Bild: Photo by Mortiz Bernouilly, John Schlemann

Pläne: Aldo van Eyck Robert McCarter; McCarter, Robert 1955, New Haven : Yale University Press



THE NETHERLANDS COURT OF AUDIT

DUTCH STRUCTURALISM

– THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Shweta Devendra Joshi



The Netherlands Court of Audit and the garden

Object	The Netherlands Court of Audit
Address	Lange Voorhout 8, 2514 ED Den Haag
Architect	Aldo van Eyck
Start of planning	1992
Realization	1997
Description	

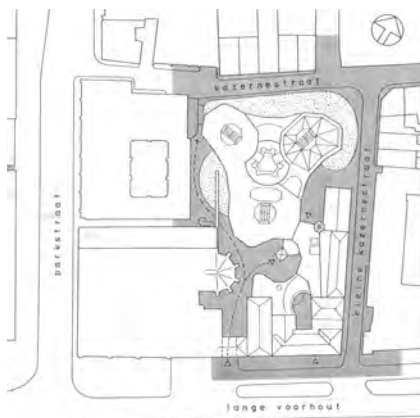
*Literatur: Aldo + Hannie van Eyck Foundation (2022): About Aldo + Hannie van Eyck I. Alegemene Rekenkamer (2022): Pand aan het Lange Voorhout 8. Available online at <https://farhady.com>; Nam, Jeehyun (2009): Comparison of In-between Concepts by Aldo Van Eyck and Kisho Kurokawa. In *Journal of Asian Architecture and Building Engineering* 8 (1), pp. 17–23. DOI: 10.3130/jaabe.8.17. Sack, Oliver (Ed.) (2018): In-between, twin phenomena and the Court of Audit. *The Irritant Principle of Renewal: 100 years of Aldo & Hannie van Eyck, 28.11.2018-30.11.2018*. Jaap Bakema Study Centre. Salomons, Izak; van Eyck, Aldo (1999): *Built with colour. The Netherlands Court of Audit by Aldo and Hannie van Eyck*. Rotterdam: 010 Publishers.*

Bild: Salomons, Izak; van Eyck, Aldo (1999): Built with colour. The Netherlands Court of Audit by Aldo and Hannie van Eyck. Rotterdam: 010 Publishers. <http://www.archipicture.eu/Architekten/Netherlands/Van%20Eyck%20Aldo/Aldo%20van%20Eyck%20-%20Court%20of%20Audit%201.html>

Pläne: Salomons, Izak; van Eyck, Aldo (1999): Built with colour. The Netherlands Court of Audit by Aldo and Hannie van Eyck. Rotterdam: 010 Publishers.

The Court of Audit in the Netherlands was commissioned in 1992 to Aldo and Hannie van Eyck architects in Amsterdam. The building was built during 1995–1997 in the historical centre of The Hague. The original site consisted of multiple old buildings that did not fit well together and did not fulfil the requirements of a modern office building. The design of the multi-coloured building does not follow the stipulated building lines like the buildings surrounding it. The design of the building was so unique that the reservations of the department of historic buildings were overruled by the other municipal authorities. The building houses the Netherlands Court of Audit, a state institution, that controls the spending of the government. The function of the institution in itself places it above ministers and their departments. The gross floor area measures 8090 m² and contains office space for 248 people.

The Court of Audit, Tripolis and European Space Research and Technology Centre is part of a series of office buildings designed by Aldo and Hannie van Eyck, that have recurring elements such as the offices



TRIPOLIS OFFICE COMPLEX

DUTCH STRUCTURALISM – THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Jan Preuss



complex in greater context

Object	Tripolis Office Complex
Address	Burgerweeshuispad, 1076 Amsterdam
Architect	Aldo van Eyck
Start of planning	1990
Realization	1994
Description	

Tripolis was the result of an international campaign to preserve the orphanage. Herman Hertzberger has started an announcement in 1988 with the idea that a developer gets the chance to build a new office building on former playgrounds of the orphanage whether he will renovate this. The design of the new office complex is also done by Aldo van Eyck himself and his wife Hannie and responds to his orphanage in many of its core aspects. His major idea bases on creating a building like a lively city, where people can meet each other and feel like home, instead of anonymous rooms which are reduced and divided to different functions.

The building is placed on top of a large underground car parking and raises the level of ground floor to the roof height of the orphanage. The whole complex offers 25.000 square meters for office spaces which is divided in three separated clusters. Each cluster has four towers, one central tower for access, circulation and auxiliary rooms, and three office wings. The number of storeys varies from three to seven each cluster.

literature:
gemeente amsterdam
archipicture.eu
architectureguide.nl

pictures:
archipicture.eu
archiweb.cz

plans & drawings:
Aldo van Eyck
Moriko Kira Architect



SIEDLUNG HOFDIJK

NIEDERLÄNDISCHER STRUKTURALISMUS – DER MENSCH IM ZENTRUM VON HAUS UND STADT

by Mario Tschopp



Abb. 01: Präsentationszeichnung

Object
Address
Architect
Start of planning
Realization

Wohnsiedlung Hofdijk
Stroveer, 3032 Rotterdam NL
Jan Verhoeven
1977
1983

Description

Literatur:

[1] Krabshuis, Lou, Peluffo Navarro, Miguel, Kruger, Wout: *Repetition and Exception in the Architecture of Mass Housing. Heliport. Delft 2017-2018*, S. 3

[2] Hofdijk Residential Development. <http://schatkamer.nai.nl/en/projects/woningbouw-hofdijk> (19.03.22)

[3] Urban, Florian: *The New Tenement. Residences in the Inner City Since 1970. London 2017*, S. 72

[4] Krabshuis, Lou, Peluffo Navarro, Miguel, Kruger, Wout: *Repetition and Exception in the Architecture of Mass Housing. Heliport. Delft 2017-2018*, S. 3

Abbildungen:

Abb. 01, 04:

Verhoeven, Jan: NAI Collection. 1979. <http://schatkamer.nai.nl/en/projects/woningbouw-hofdijk> (19.03.22)

Abb. 02:

Verhoeven, Jan: NAI Collection. 1977. <http://schatkamer.nai.nl/en/projects/woningbouw-hofdijk> (19.03.22)

Abb. 03, 06:

<https://nieuws.top010.nl/woningbouw-hofdijk-stoveer.htm> (16.03.22)

Abb. 05:

http://rotterdam70.nl/tien_iconen/hofdijk-1.html (16.03.22)

Abb. 07:

Verhoeven, Jan: NAI Collection. 1983. <http://schatkamer.nai.nl/en/projects/woningbouw-hofdijk> (19.03.22)

Die Wohnsiedlung Hofdijk befindet sich im östlichen Stadtzentrum von Rotterdam. Umgeben von grossmassstäblicher Nachkriegsarchitektur sitzt auf einem ehemaligen Helikopter-Flugplatz ein Ensemble aus markanten Satteldächern.¹ Jan Verhoeven wollte das Wohnen am Wasser zurück ins Stadtzentrum bringen und entwarf eine Inselsiedlung mit Häusern auf Brücken.²

Ausgehend von einer Ost-West-Achse werden ein zentraler, öffentlicher Platz und acht private Höfe geformt, die vom Fluss Rotte durchquert werden. Im Süden und im Nord-Osten schliessen lineare Häuserzeilen die Siedlung zu den angrenzenden Strassen ab. Insgesamt 584 Wohnungen und 4 lokale Läden sind in 19 unterschiedlichen Typologien auf vier bis sieben Geschossen verteilt. Alle Wohnungen in den oberen Geschossen sind über Lauben erschlossen, die sich den öffentlichen Räumen zuwenden.³

Die Struktur der Siedlung ordnet sich einem strikten 4.92m Raster unter, der mit Backstein, Holz oder Beton gefüllt ist.⁴



THE PLAYGROUNDS OF ALDO VAN EYCK

DUTCH STRUCTURALISM – THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Hanne Gabriels



Fig. 1. Laagte Kadijk Amsterdam

Object	Playground Bertelmanplein
Address	Bertelmanplein, Amsterdam
Architect	Aldo Van Eyck
Start of planning	1947
Realization	1947

Description

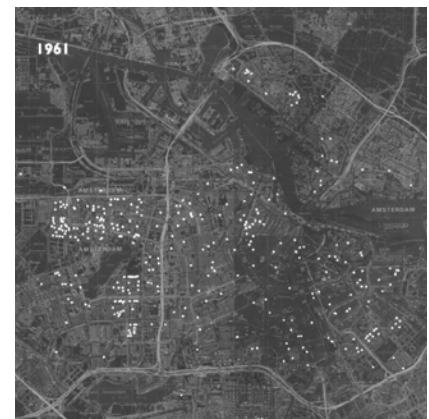
The Amsterdammers playgrounds of Aldo Van Eyck in the fifties are described as the most successful and known projects of the post-war Architecture, Urbanism and Arts as well as Aldo Van Eyck's best work.

The first one was developed in 1947 on the Bertelmans-square in Amsterdam. It started as an experiment to give open space back to the city. After Bertelmans followed over 700 more projects all over the city. Every neighbourhood that wanted one, would receive one. The Playgrounds gave a radical twist to the view on urbanism after the second world war. Open spaces in between houses, left behind after bombing, would be turned in to a playground where children, parents and elderly would come together and play or watch the children playing. A place like this did not exist before. There were some playgrounds, but to make use of them you had to be part of a closed community. The playgrounds of Van Eyck opened a new humane perspective on the city which was before only designed from a birds view.

Literature, images and plans all received from:

Ligtelijn, V. (1999). *Aldo van Eyck, Werke*. Amsterdam: Birkhäuser.

Lefaivre, L & de Roode, I. (2002). *Aldo van Eyck, The playgrounds and the city*. Amsterdam: Stedelijk Museum Amsterdam.



THE PLAYGROUNDS OF ALDO VAN EYCK

DUTCH STRUCTURALISM – THE HUMAN BEING AT THE CENTER OF HOUSE AND CITY

by Hanne Gabriëls

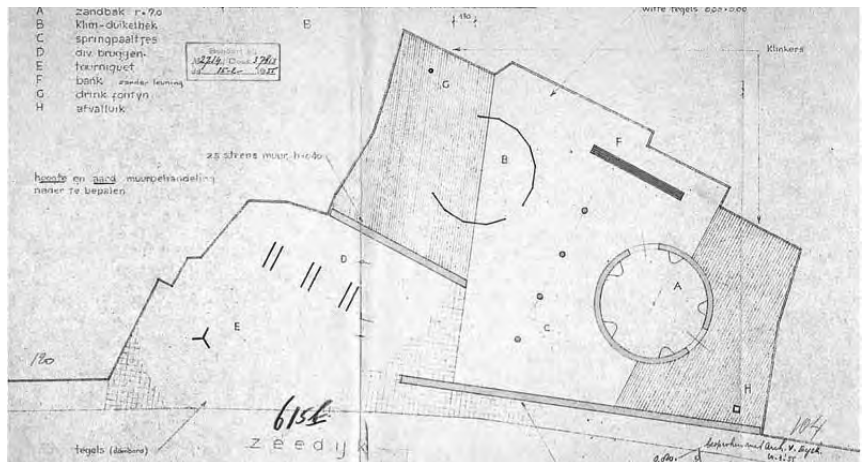


Fig. 4. Ground plan Zeedijk speelplaats Amsterdam, 1955

Object	Playground Zeedijk
Address	Zeedykstraat, Amsterdam
Architect	Aldo Van Eyck
Start of planning	1955
Realization	1955

Description

All of the 700 examples of Aldo Van Eyck’s playgrounds are different. Nevertheless is the playground on Zeedijk seen as more rare than any other. The playground is enclosed in between a chaotic combination of neighbouring walls created by the properties around. The location was hidden by a temporary blind wall facing the street. The playground at Zeedijk is positively differing of others in its inventive ground plan and colourful walls which are painted in geometric forms by Van Eyck’s brother in law, Joost van Rooijen. It is one of the very successful cooperation’s of architecture and arts which is new in the post-war situation but provided also lots of discussion.

Van Eyck’s playgrounds, especially the one at Zeedijk, were the first examples as alternative on the CIAM-style. The playground zeedijk is the perfect example which testifies Van Eyck’s constant search for and experimenting on a variety of form and composition, which triggert multiple movements in the architecture and urbanism as well in the arts of the post-war styles.

Literature, images and plans all received from:
 Ligtelijn, V. (1999). *Aldo van Eyck, Werke*. Amsterdam: Birkhäuser.
 Lefaivre, L & de Roode, I. (2002). *Aldo van Eyck, The playgrounds and the city*. Amsterdam: Stedelijk Museum Amsterdam.



