

## Aldo van Eyck – Shaping the New Reality From the In-between to the Aesthetics of Number

Francis Strauven

*“What you should try to accomplish is built meaning.  
So get close to the meaning and build!” (1962)*

The role played by Aldo van Eyck in the development of architectural thinking after the Second World War has been acknowledged by several authors, but, remarkably, they all situate him in a different way. Charles Jencks saw him as an important representative of the ‘idealistic’ tradition that he viewed as the mainstream of the Modern Movement. By contrast, Kenneth Frampton stressed the radical critique he exerted on the modern movement, and paid special attention to the unorthodox position he occupied in relation to his contemporaries within Team 10. Oriol Bohigas saw the geometric layout of Van Eyck’s plans as a return to the compositional techniques of the Enlightenment while Adolf Max Vogt attributed the specific quality of his work principally to his interest in ‘primitive’ cultures. And ignoring Van Eyck’s strident stands on Postmodernism, Heinrich Klotz included Van Eyck’s work among the ‘preconditions’ (*Voraussetzungen*) of this trend.<sup>1</sup>

Paradoxically, most of these views can be considered to be partially true. In fact, Van Eyck’s thinking fundamentally proceeded in terms of reconciling opposites. Throughout his career, he applied himself to the exploration and the relationships between polarities, such as past and present, classic and modern, archaic and avant-garde, constancy and change, simplicity and complexity, the organic and the geometric. The divergent appreciations of the authors appear to stem from their concentration on only half of these polarities, whereas Van Eyck

considered them to be complementary. He saw that maintaining the dialectics of these opposing factions was a necessary condition for the development of a genuinely contemporary architecture.

In particular, his attitude to the past was rather exceptional among modernist architects of his generation. He identified with the world view of the 20th century avant-garde, but from this resolutely modern point of view, he developed an original outlook on history.

As he explained at the final CIAM congress in 1959 at Otterlo, Aldo van Eyck intended his work to be based on three great traditions: the classical, the modern and the archaic. He visualized his credo with a striking two-circle diagram. In the first circle he characterized each of the three traditions with a fitting paradigm: the classical, 'immutability and rest', with the Parthenon; the modern, 'change and movement', with a counter-construction of Van Doesburg; and the archaic, 'the vernacular of the heart', with a Pueblo village. He held the view that these three traditions should not be considered mutually exclusive but should be reconciled in order to develop an architecture with a formal and structural potential sufficiently rich to meet the complex reality of contemporary life.

The paradigms of the three traditions are united in a large circle which stands for the realm of architecture. This clearly defined realm is connected with a different one, the reality of human relationships which is summarized in the right-hand circle by a picture of dancing Kayapó Indians. The dancers' bodies join to form a circular - or rather spiral - human wall around an open centre that expands or shrinks as the spiral relaxes and tightens in the rhythm of the dance. Architecture has to deal with this 'constant and constantly changing' human reality, i.e. not only with what is different from the past, but also with what has remained the same.

Aldo Van Eyck was born in Holland but grew up in England, where he received a solid classical, though unorthodox education. His father, the poet and philosopher Pierre N. van Eyck, was a man of exceptional classical erudition, and although based in London where he earned his living as a foreign correspondent of a Dutch newspaper, he was one of the leading figures in Dutch literature between the two World Wars. He had his sons educated in progressive non-authoritarian schools (King Alfred

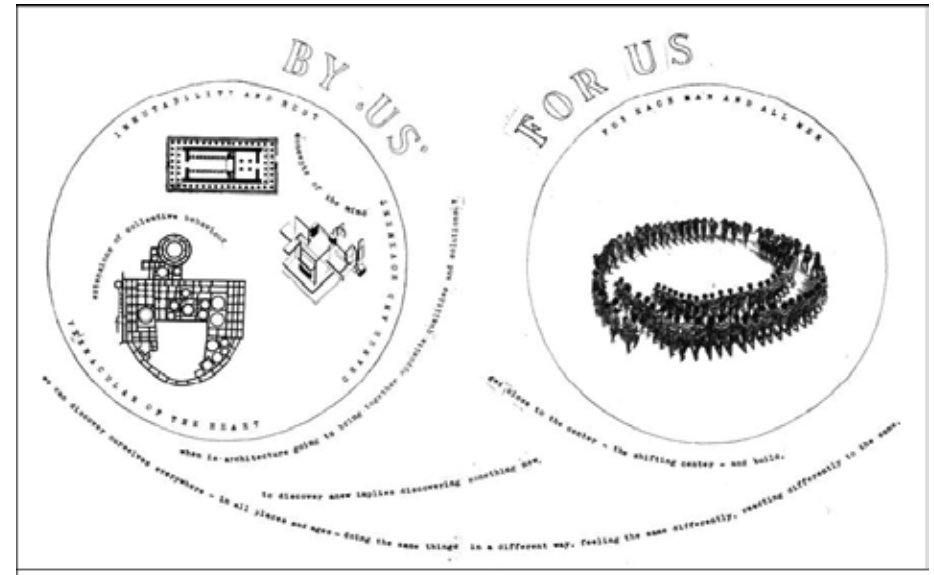


Fig. 1 Otterlo Circles, 1959-62. © Aldo van Eyck Archive

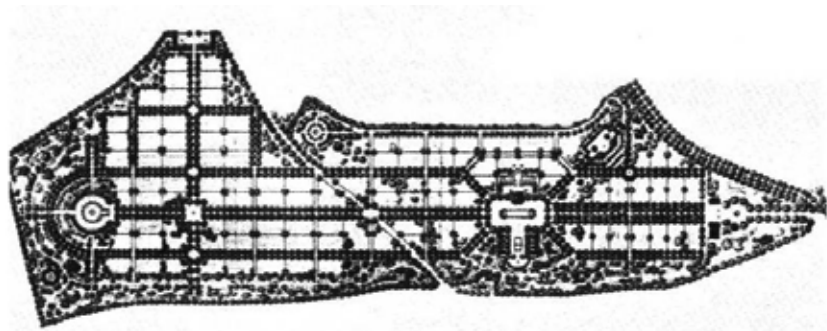


Fig. 2 A. Laverrière, Cemetery Bois du Vaux, Lausanne, 1926



School in Hampstead and Sidcot School in Somerset) where art and literature occupied pride of place. Aldo van Eyck grew up in a bi-cultural world, imbued with poetry, and by the age of 15, he had acquired an exceptional literary culture. He read a great deal of English poetry, from Beowulf to W.B. Yeats, who was a personal acquaintance of his father. His world view was, therefore, not shaped by religious instruction, but by the pantheism imbedded in Symbolist poetry, from Andrew Marvell to John Keats. Notably, from his early familiarity with the poetry of William Blake, he understood the mutual interaction of opposites as a prime principle.

Van Eyck's classical education continued during his architectural studies at the Zurich ETH, where the Semper tradition lived on in an updated version. He was introduced to the world of the Baroque by the flamboyant art historian Linus Birchler, and to classical composition by the beaux-arts veteran Alphonse Laverrière. The latter's course mainly consisted in the theory and the practice of axial composition. Laverrière taught his students how to order and relate to things by means of axes without them necessarily having a subordinate meaning. For Van Eyck this was to be a lasting skill, especially as he discovered how these age-old immaterial binding agents could be used in order to establish anti-classical, decentralizing relationships.<sup>2</sup>

As to the modern tradition, until the end of his studies Aldo van Eyck had only a limited, rather distant knowledge of it, but shortly before graduating, he suddenly gained access to the world of the 20th century avant-garde. This breakthrough was brought about by Carola Welcker, Sigfried Giedion's wife, who was one of the first classically-schooled art historians engaged in an in-depth study of modern art. C.W., as she liked to be called, knew modern art from within, from her friendship with its protagonists. Having closely followed the development of artists such as Arp, Klee, Mondrian, Brancusi and Joyce, she had evolved an original vision of modern art based on their personal intentions. Her originality laid in her recognizing a common ground to the different expressions of modern art. In her view, the diverse avant garde currents, from cubism to dadaism, from constructivism to surrealism, were the multicoloured components of one and the same movement, based on a common underlying thought pattern - a movement that as a whole was revealing a new view of the world, a 'new reality.'

How did C.W. see this 'new reality'? For her it amounted to nothing less than a new synthesis of the concealed energies of existence. In the words of Klee, the aim of art was no longer to reproduce the visible but to make visible. Breaking through outward appearances, modern art had disclosed the original, elementary forces which are constitutive for both the subject and things. It had revealed the world to be an intricate tangle of energies, a complex unity of interacting forces. And, wholly in line with the Gnostic tradition, C.W. identified these forces with the pairs of opposites that emerge as the fundamental structure of existence since the inception of human thought, opposites such as one-many, mind-matter, subject-object, cerebral-sensual, dream and conscious reality. She recognized them to be the eternally recurrent 'basic substance of our dissonant existence'. Modern art had rediscovered these fundamental opposites and was expressing them with the elementary means of visual language so as to relate them to one another with new, non-subordinative connections. Far from excluding the one in favour of the other, art dealt with them simultaneously in order to make them interact into a new dynamic reality.

C.W. enlightened the young Van Eyck to this reality and brought him in contact with artists such as Arp, Lohse, Vantongerloo, Giacometti, Ernst and Brancusi. Immersing himself in the new consciousness, he explored its manifestations in both art and science, in painting and poetry, in the new theories of space and time put forward by Bergson and Einstein. He soon felt part of what he was to call the Great Gang, the huge conspiracy to actualize the new reality. The more he came to identify with the new consciousness, the more he recognized that its different manifestations were grounded on one fundamental idea, the idea of relativity. Relativity implies that the world cannot be regarded as having an inherent hierarchical structure, subjected to a privileged, absolute frame of reference or to an intrinsic centre. All viewpoints are equivalent; every place is entitled to be regarded as a centre. But far from being a chaos of unrelated fragments this polycentric reality has a complex coherence in which things, though autonomous, are linked through purely reciprocal relations; a coherence in which these relations are as important as the things themselves. Van Eyck would summarize this view using a telling statement by Mondrian: 'The culture of particular form is approaching its end. The culture of determined relations has begun.'<sup>3</sup> Since the end of his Zurich years Van Eyck conceived relativity as the paradigm of 20th century art and science, as the fundamental value by which contemporary



Fig. 3 Carola Giedion-Welcker (1893-1979) with the cover of her *Schriften* 1926-1971. Cologne: DuMont Schauberg, 1973. Photo Franco Cianetti



Fig. 4 Playground Zaanhof, Amsterdam, 1948. © Aldo van Eyck Archive, photo Wim Brusse



culture distinguishes (or could distinguish) itself from preceding epochs, as 'the true myth of our age'. He set himself the task of achieving it in the field of architecture.

Van Eyck's passion for archaic art grew out of his identification with modern art, notably with the 20th century avant-garde. It was aroused by Surrealism, through the publications of André Breton and his friends who were particularly interested in the art of the Pacific Isles. And it was through the surrealist magazine *Minotaure* that he became acquainted with the Dogon. During his Zurich years, in an antiquarian bookshop, he found an old issue of this magazine, which was entirely devoted to an ethnologic expedition across Africa, conducted by Marcel Griaule.<sup>4</sup> It included a number of pictures showing masks and other cult objects, and an article on a Dogon funeral ritual. Like C.W., Van Eyck acknowledged archaic art in its expression of biomorphic archetypes closely akin to those brought forth by Klee, Arp and Brancusi. In their view, this similarity was not a question of the former being influenced by the latter, but as the manifestation of the same human identity in a kind of *Ursprache*, a primeval human visual language which had survived through the millenia within a number of archaic cultures, and which modern art had rediscovered independently. Thus, paradoxically, it was in order to implement the achievements of the 20th century avant-garde that Aldo van Eyck became engaged in archaic art. He considered it a heritage equally important as the classical patrimony of Western culture - a view he was to find corroborated in the writings of anthropologists such as Franz Boaz, Margaret Mead and Ruth Benedict. In due course he developed the conviction that all cultures are equally valid and that Western civilization should not be regarded as the superior system it pretends to be. He reckoned that the so-called primitive cultures are just as sophisticated as our own, particularly with regard to cultural production, such as language and art. He considered that architecture, like paintings since Cubism, had to rediscover 'the archaic principles of human nature,' the fundamental human constants shaped by archaic cultures since time immemorial. As he put it at the Otterlo congress: 'To discover anew implies discovering something new. Translate this into architecture and you'll get new architecture - real contemporary architecture.'

How did Aldo van Eyck implement these views in his own work? In his earliest practice he started from the elementarism of De Stijl. The Zurich

tower room (1945) for example, shows an ensemble of free floating planes that betrays definite affinities with the counter compositions by Van Doesburg. But soon he proved to be not entirely satisfied with abstract geometric forms devoid of any association. When he embarked on the Amsterdam playground project (1947-78), he conceived of elementary forms that included both architectonic and biomorphic connotations: on the one hand low, massive concrete sandpits and stepping stones, on the other, slender somersault frames, arches and domes made of metal tubing. All of these elements lent themselves to various kinds of childplay but at the same time their archetypal forms implied multiple meanings. The arches and the domes were basic tectonic forms that fitted seamlessly in the language of the city.

The sandpits, round or square, were simple geometric forms but at the same time they constituted receptive bodies, welcoming and sheltering the playing child. In some cases this applied to the playground as a whole. The playground in Mendes da Costahof (1957, built 1960) for example, consisted of three circles of different diameters, linked by an axial path. They could be seen as an axial succession of simple geometric forms, but at the same time the composition evoked a somewhat anthropomorphic figure, a shape 'carved out' from the surrounding shrubbery. The playing children were harboured within a body-like space, in a kind of maternal body.

This was, however, but one of Van Eyck's compositional techniques, all of which were aimed at evolving different forms of non-hierarchical order. Time and again he set up shifting frames of reference, marked out equivalent vantage points, and relativized the conventional spatial hierarchy by establishing excentric centres and symmetries. He sought to realize recognizable places whose cohesion lay in their reciprocal relations, not in their subjection to a central point. In the playgrounds, Van Eyck succeeded, in the words of Georges Candilis, in creating an architecture of exceptional quality using the most modest of means, an architecture 'that consisted not only of hard, tangible materials but also of immaterial materials.'<sup>5</sup>

After a decade of experimenting with elementary forms and their interrelations, Van Eyck's views were synthesized in an iconic building, the Amsterdam Municipal Orphanage (1955-60). Here he succeeded in reconciling a great many polarities. The Orphanage is both house and

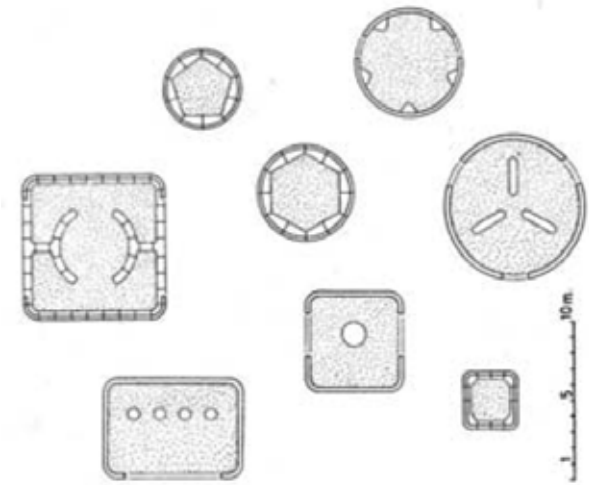


Fig. 5 Sandpit types. © Aldo van Eyck Archive



Fig. 6 Playground Mendes da Costahof, 1957-60. © Aldo van Eyck Archive, photo Pieter Boersma

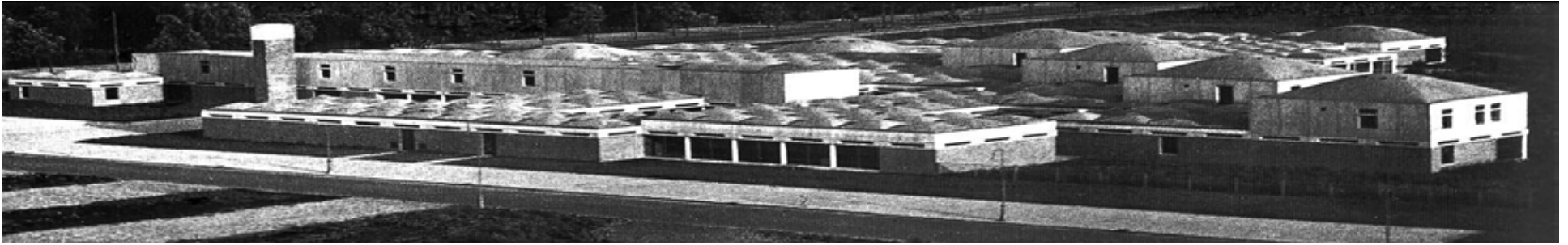


Fig. 7 Amsterdam Municipal Orphanage, 1955-1960. © Aldo van Eyck Collection, photo J.J. van der Meyden

city, compact and polycentric, single and diverse, clear and complex, static and dynamic, contemporary and traditional; rooted as much in the classical as in the modern tradition. The classical tradition resides in the regular geometrical order that lies at the base of the plan. The modern one manifests itself in the dynamic centrifugal space which traverses the classical order. The archaic tradition shows up in various aspects of the building's formal appearance. Due to the soft, biomorphic cupolas which cover the entire building, the first impression it evokes is that of an archaic settlement, reminiscent of a small Arabic domed city or an African village.

The geometrical order of the building is articulated by a contemporary version of the Classical Orders, composed of columns and architraves. The columns are slender concrete cylinders with fine 'fluting' left from the shuttering; the architraves are concrete beams, each with an oblong slit at the centre. Their joined extremities give the impression of a capital, though capitals as such are absent. The small domes form a grid that extends evenly across the entire building so that the overall pattern can be read at every point. Along the axial lines of this grid, pillars, architraves and solid walls mark off a number of well-anchored, enclosed spaces: the living rooms and adjoining patios, the festive hall, gymnasium and central court. All are spaces related primarily to their centre, a

centre established by the large dome-shapes, the axial lines of the grid generated by the small domes, and the axially placed doors. The inner court seems to be a latter-day version of a Renaissance 'cortile' and the interior streets at times recall Romanesque cloisters.

The 'immutability and rest' of the classical tradition, however, is fully assimilated and traversed by the dynamic ordering of the new reality. The centrality established by the architectural 'order' is restricted to the spaces mentioned above, and is countered just about everywhere, as much in the design of the specific equipment as in the overall composition. The focus of the interior court is a circular seat marked by two lamps, which rather than occupying the geometric centre of this space, is shifted four metres or so diagonally from it. And if this piazza is indeed the centre of the entire settlement, it does not dominate as such. From it the settlement fans out centrifugally in all directions; it is the fixed point from which decentralization is developed and delineated. Thus, the axial ordering of the square does not extend in any way to the internal circulation areas. It merely provides the initial impulse for the two interior streets, which branch out in contrary zigzag movements, to give access, via interior and exterior courtyards to the various units. Consequently, the residential units that unfold along these streets are in no way bound together by a central perspective. They shift in relation to

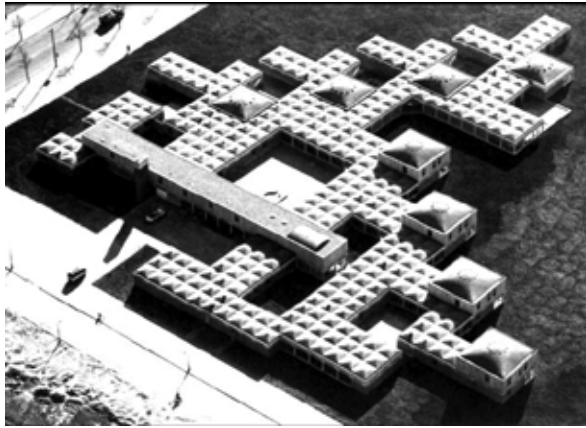


Fig. 8 Amsterdam Municipal Orphanage, 1955-1960. © Aldo van Eyck Archive.



each other like the elements of a counter-composition by Van Doesburg. Their cohesion, paradoxically enough, lies largely in the centrifugal movement of which they form part.

The basic forms of the two groups of residential units are a union of distinctly 'open' and distinctly 'closed'. The 'rear' of the units that back on the north consists of an unbroken, solid right-angled wall, their south-facing front being a right-angled succession of glazed walls. In the quarters for the older children, glazed and brick walls unite in a simple elongated L-shaped space, but in the units for the younger ones, the brick wall envelops most of the domed area and the entire dormitory wing. The glazed walls jut southward to mark out an additional shifted space, upon which, returning to the dormitory wing, they penetrate the building perimeter to hollow out a roofed terrace beyond the columns and architraves.

Embodying a maximum amount of both closeness and openness, these units also represent a striking example of Van Eyck's view that architecture should, just like man, breathe in and out. And remarkably, the ground plan of these interlocking units appears to resemble that of the whole building. In this 'little city' as a whole, the 'houses are linked to the outside world by articulated external spaces with loggias. These outside spaces, both large and small, are characterized by a similar centrifugal structure. Similarly, the diagonal direction which cuts across the orthogonal structure of the whole building is also recognizable in the residential units. The large-domed spaces which are primarily centralized, self-contained places, are not confirmed in their centralism by the arrangement of the built-in elements. The focus of the interior, a round or square playhouse, is offset diagonally with respect to the geometric centre. Furthermore, the main central axes of the domed space are offset by secondary axes marked by the three columns which delimit the open south-east corner of the space. Together with the eccentric playhouse, these shifted axes give the domed space a diagonal direction that relates to the second, southwards-shifted living room.

The third tradition, the 'vernacular of the heart', fuses organically with the classical one. The perforated architrave combines with the dome into an expressive biomorphic form which, variously underpinned, evokes a changing archetypal image. It may be firmly planted in the ground on two columns, spanning a bay which may be filled in with two-part glazing;





Fig. 9 Amsterdam Municipal Orphanage, 1955-1960. © Aldo van Eyck Archive.



or resting on a solid wall and articulated into a pregnant T-shape by an axially placed window or door. As a result, the bays suggest bodily shapes of an explicit symmetry. When linked, the architraves present an equally evocative image. Their horizontal openings recall the eye holes of an archaic mask, particularly when centrally underpinned by a free-standing column. This form occurs in diverse situations, where its column is anything but an obstacle. Rather, it establishes a local centre, the stem onto which a place or some interior element can be grafted. And whether separate or joined, in all kinds of variations, the bays give rise to symmetrical images, images of varying intensity which appear as a built reflection of the human figure. As such, they constitute a suggestive realization of Van Eyck's intention to conceive building 'in the image of man' and to make 'a welcome of each door and a countenance of each window.'

Thus, in the orphanage, Van Eyck turned not only to the idea of the Classical Orders, which, as well known, are considered to be anthropomorphic, but in the rather reduced sense of being an abstraction of human proportions. Inspired by archaic form language, he made this anthropomorphism more tangible by reverting to the communicative features of the human body, the symmetry of its frontal appearance, the binary appeal of the human face. And for all its expressive power, this form language is in no way expressionistic. The anthropomorphism and its communicative potential are couched in elementary, purely geometrical forms. They simultaneously constitute the structural elements of the building, and as such they also make sense. The perforated architrave may be seen as a girder with a neutral zone removed. The residential units are much like the recurring theme in a fugue, a single theme in various shapes which, linked by modulating 'interludes', interlock contrapuntally. Through the differing 'tonalities' and 'harmonizings' that the theme acquires, its repetition, far from leading to monotony, presents a continual change of character and reveals the wealth it contains. How did Van Eyck conceive this building? What was the course of its design process? Some authors take it for granted that the plan resulted from an additive composition of identical modules. This impression is indeed produced by the roof which displays a grid of identical squares. But the conceptual sketches show clearly that this grid was by no means a basic assumption. It did not appear before the final stage of the conceptual process, when Van Eyck decided to cover the building with a structure of domes. Nor do the conceptual

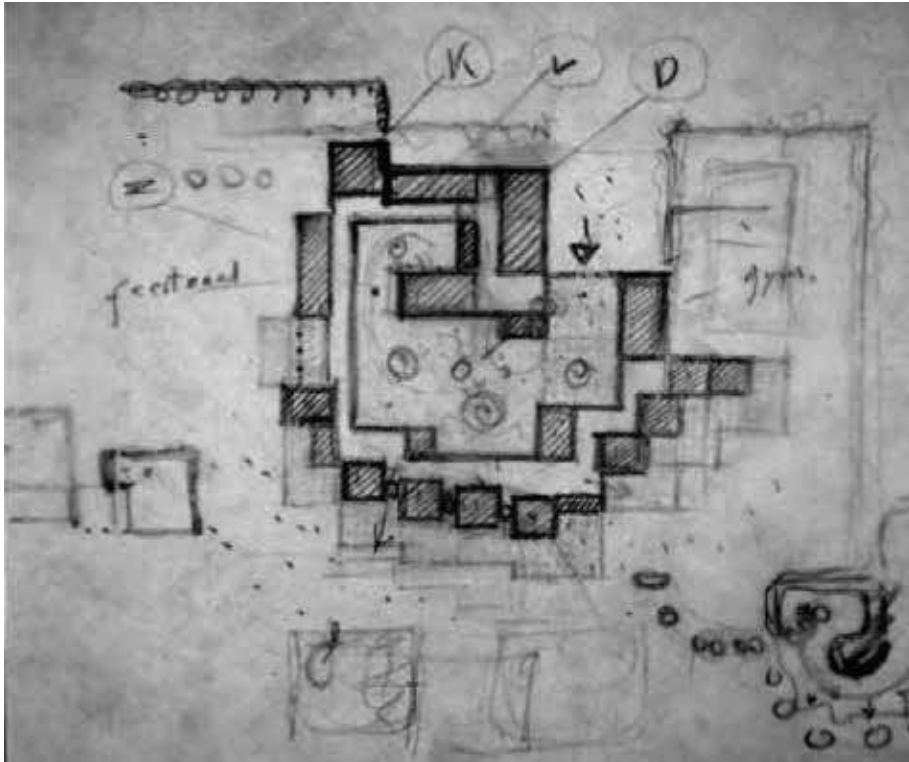


Fig. 10 The first sketches (made in January 1955) indicate the intention to structure the plan as a spiral. The outside penetrates the building in a spiral way, while the built volume encompasses outside space like a snail's shell. The result is, however, a long internal street on which the various functions are strung in a loose sequence.

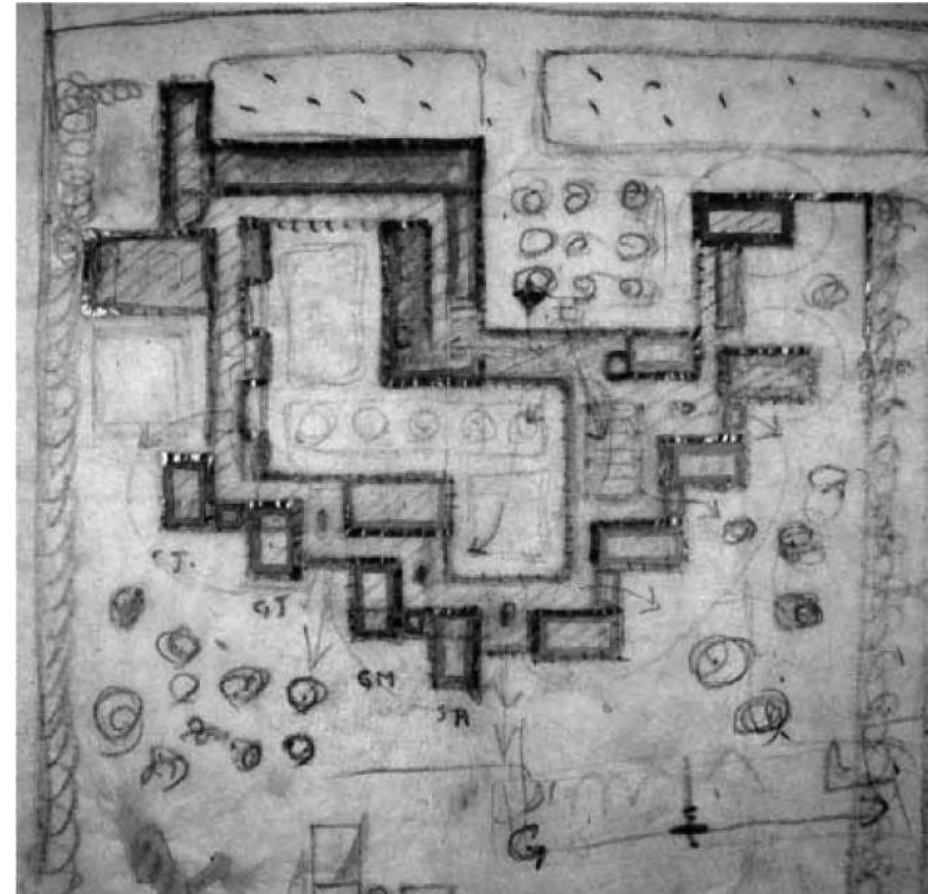


Fig. 11 The units are grouped into two zigzag formations. The inner court adopts a Z-shape similar to that of two linked units, indicating the desire to establish an isomorphism of part and whole.

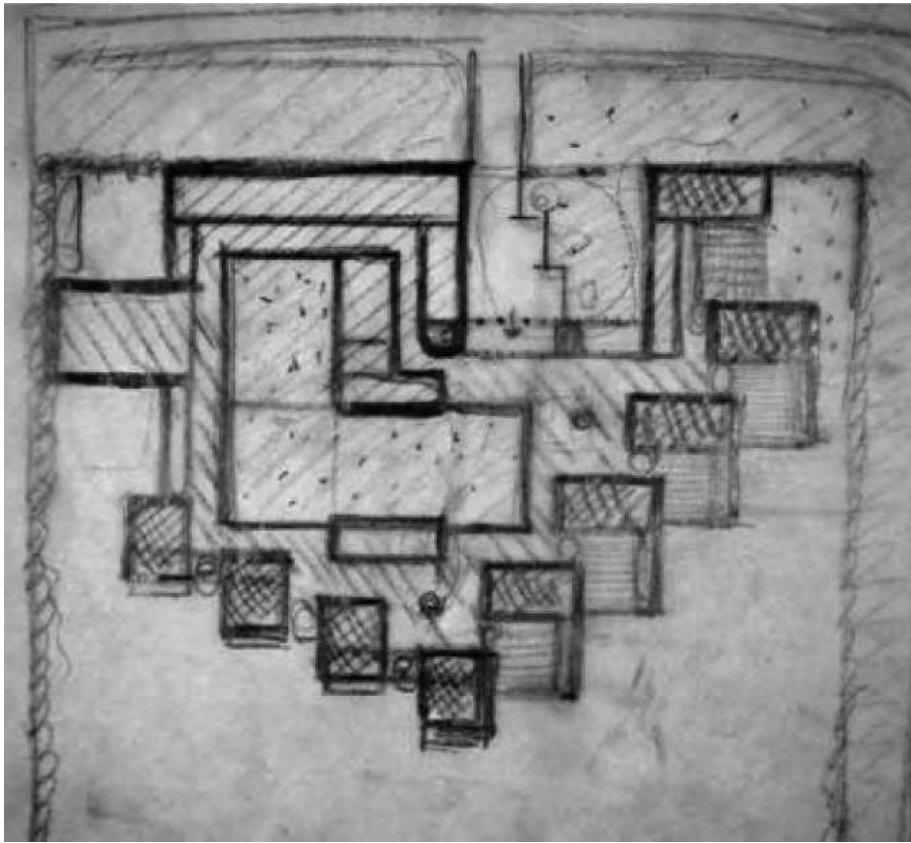


Fig. 12 In order to reduce the long corridor around the inner court, the whole design is made more compact. The courtyard is strongly reduced and takes an L-shape. The two groups of units are differentiated.

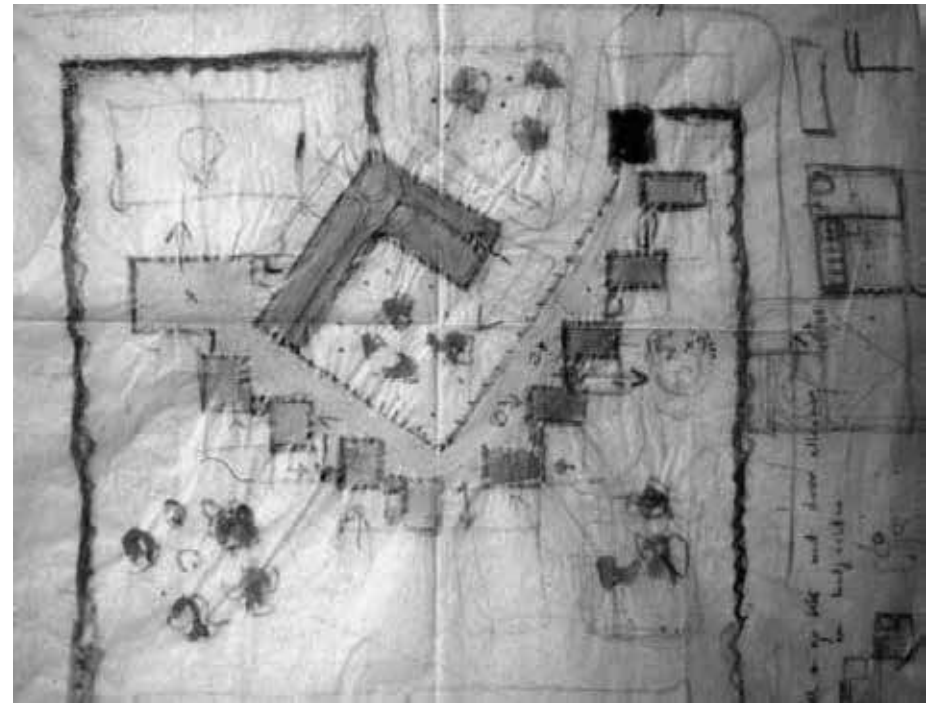


Fig. 13 An attempt is made to eliminate the circuit and at the same time to recover the spiral movement by applying a diagonal offset.

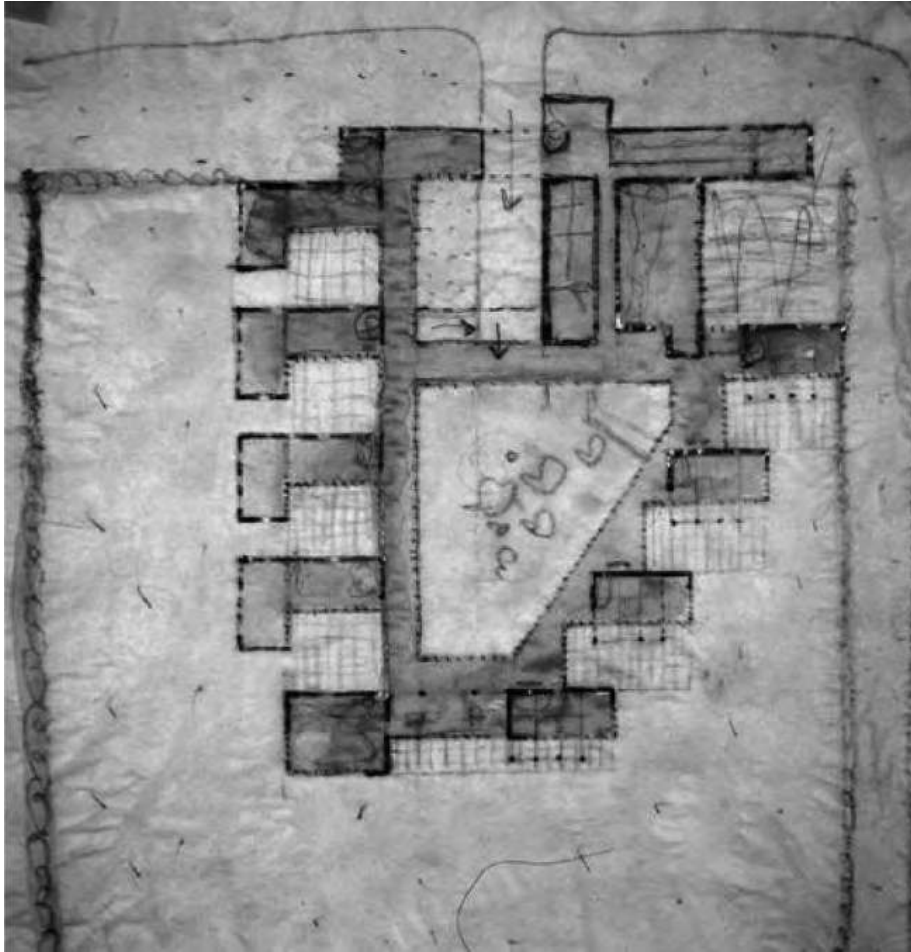


Fig. 14 The wish to provide each unit with an outside area and to distinguish the younger children's units from those of the seniors results in a different way of linking the groups. As in 13, the younger children's units are shifted with respect to one another and laid out along a diagonal street.

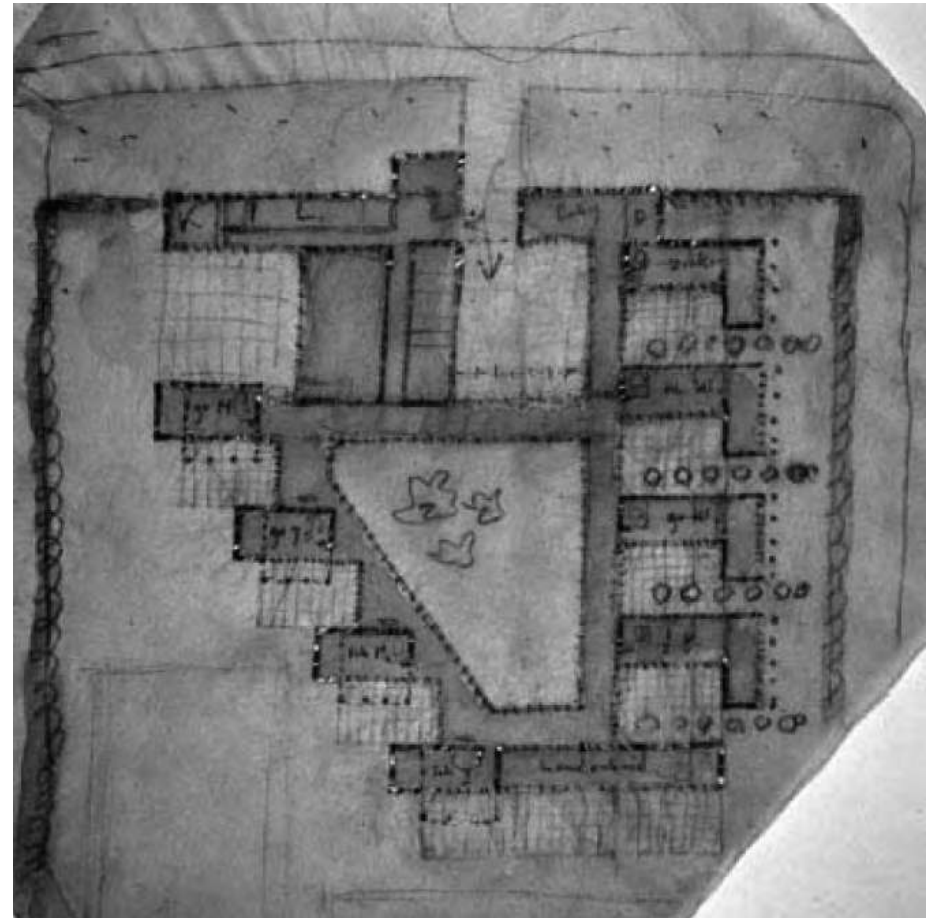


Fig. 15 An almost exact mirror image of 14.

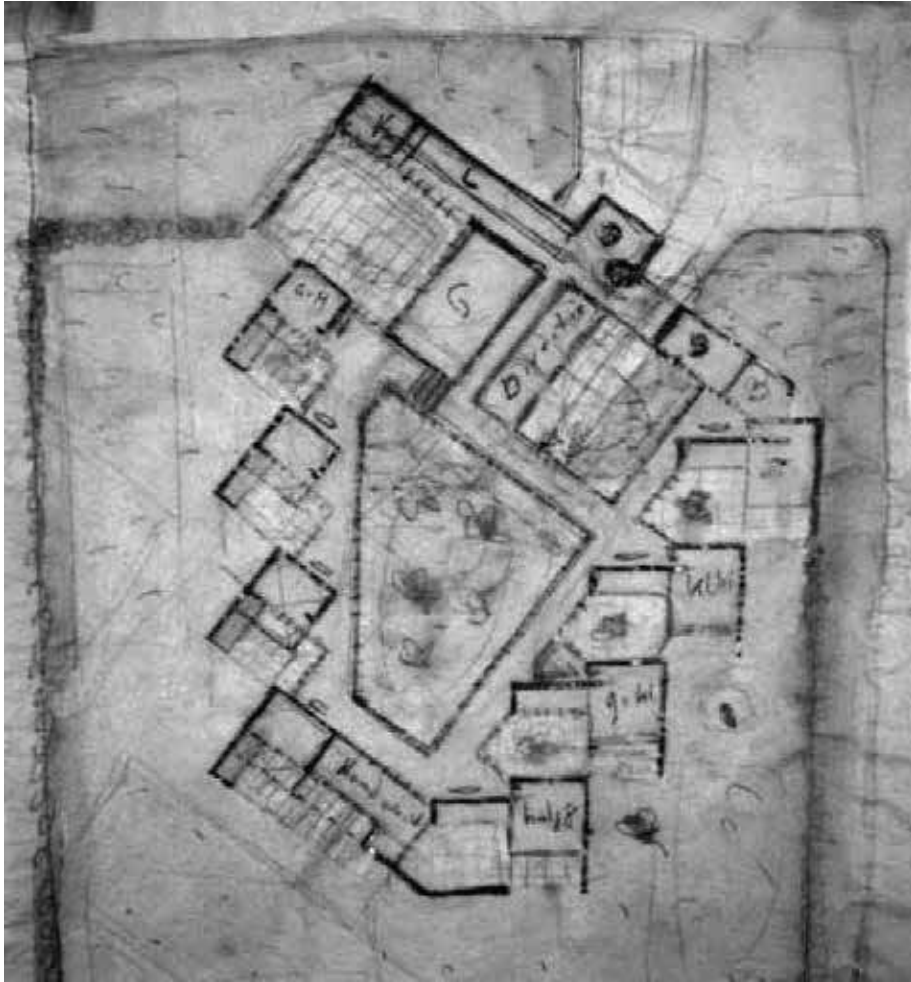


Fig. 16 A remarkable cross of 13 and 14. The east wing units take the direction of the west internal street and the west wing units take the direction of the east internal street. This reciprocity of diagonal directions generates a dynamic, asymmetrical equipoise.

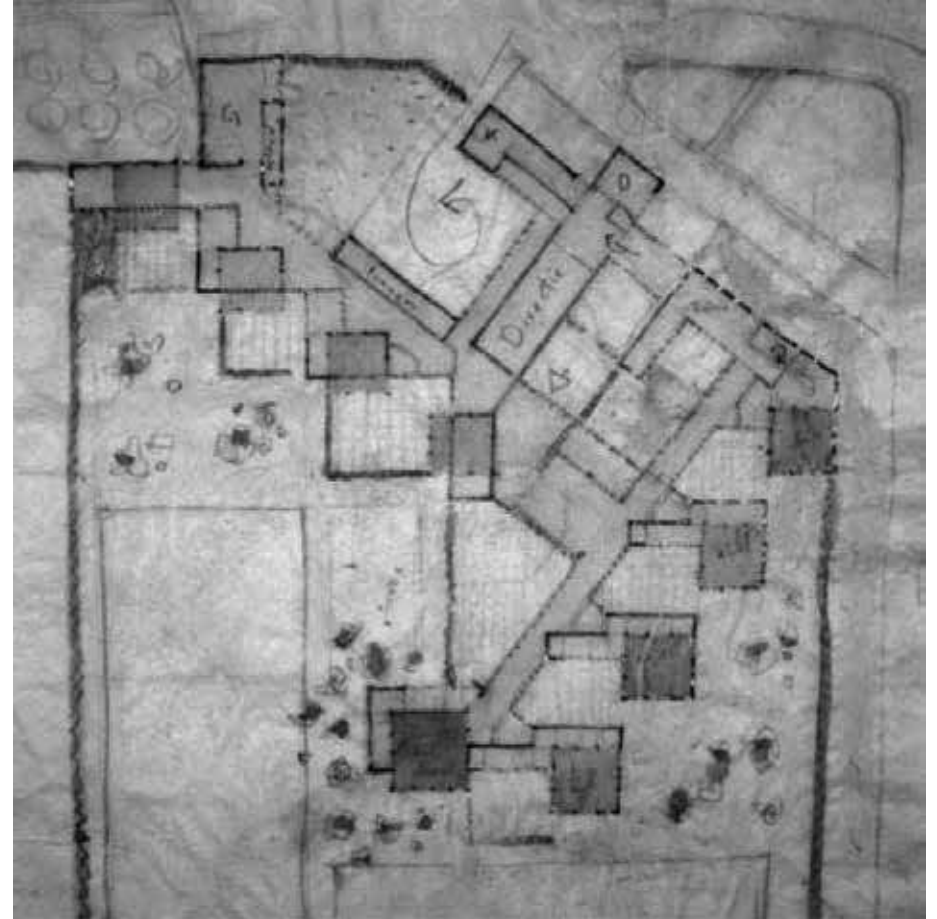


Fig. 17 A sweeping mutation. The east wing remains unchanged but the west wing is tilted at right angles to it. The definitive Y formation of the building as a whole is clearly emerging. The triangular internal garden and its circuit have disappeared. All the units are aligned parallel to the site, which is however still traversed diagonally by the internal streets.



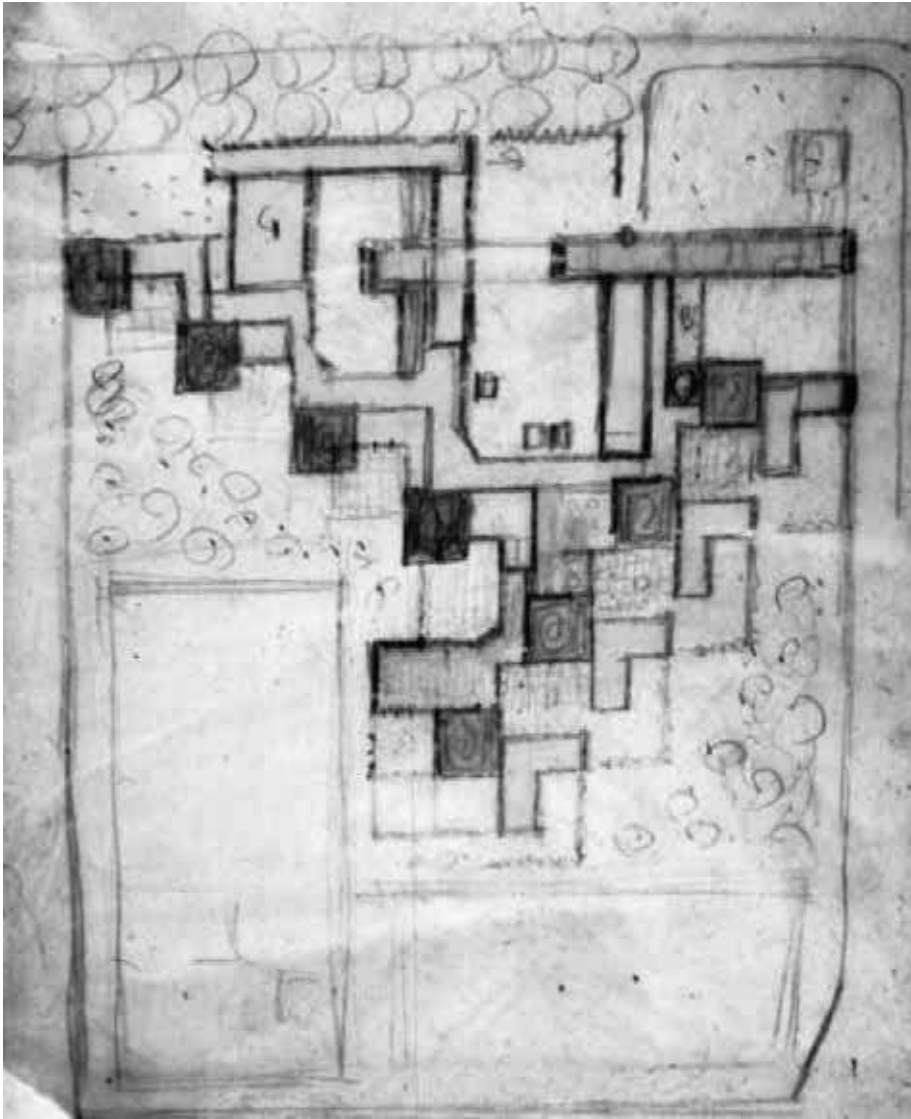


Fig. 18 The diagonals of the internal streets are gradually transformed into right-angled zigzag movements. The definitive shape of the ground plan is emerging. The original spiral has disappeared, but its dynamism has been transformed into two diagonal movements, which resolve into the rhythm of orthogonally-aligned walls and volumes. Of the adventurous excursion into the realm of the diagonal, all that remains apart from the diagonal sightlines are three obliquely truncated corners in the internal street - 'archaeological' reminders, as it were, of earlier stages in the eventful growth of the small 'city'.

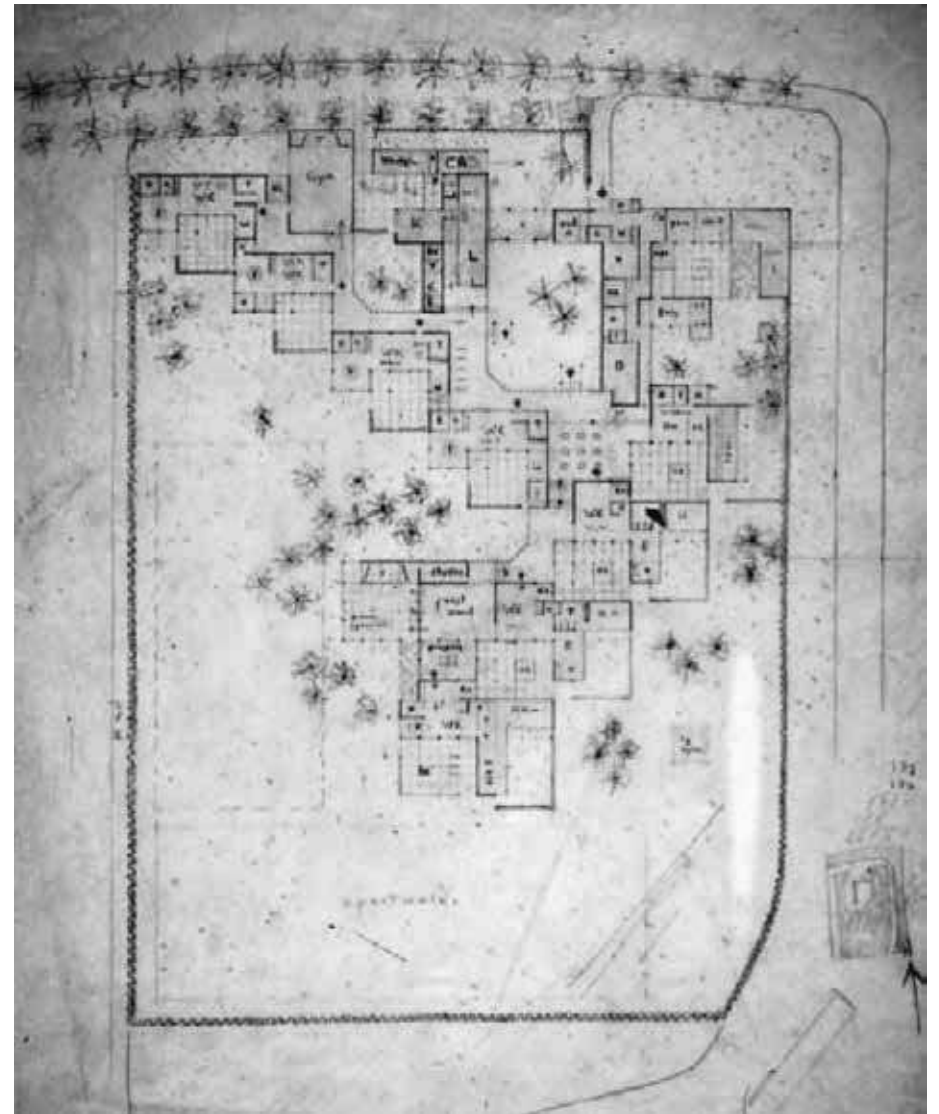


Fig. 19 Almost the same design but drawn out accurately. The ground plan is now definitive but for a few details. Only now does it make a regular geometrical impression, but it is not yet modulated within a uniform geometrical grid. At this point the building still has a flat roof, except for the eight units, which are each covered by a large pavilion roof.

sketches start form an a priori concept, a preconceived 'pre-form' (to use the word of Kahn) that maintains itself through the processing of the 'circumstances' contained in the brief. The design process proves to be a patient ars combinatoria, an unremitting exploration of the ways to connect the various parts of the programma, a gradual development of relevant patterns that eventually coalesce into a balanced, non-hierarchical organism.

This design process took place between January and May 1955, to the accompaniment and inspiration of fugues by Bach. Van Eyck used the fugal principle wholly consciously, conceiving the units as themes that interlock contrapuntally into two centrifugal sequences.

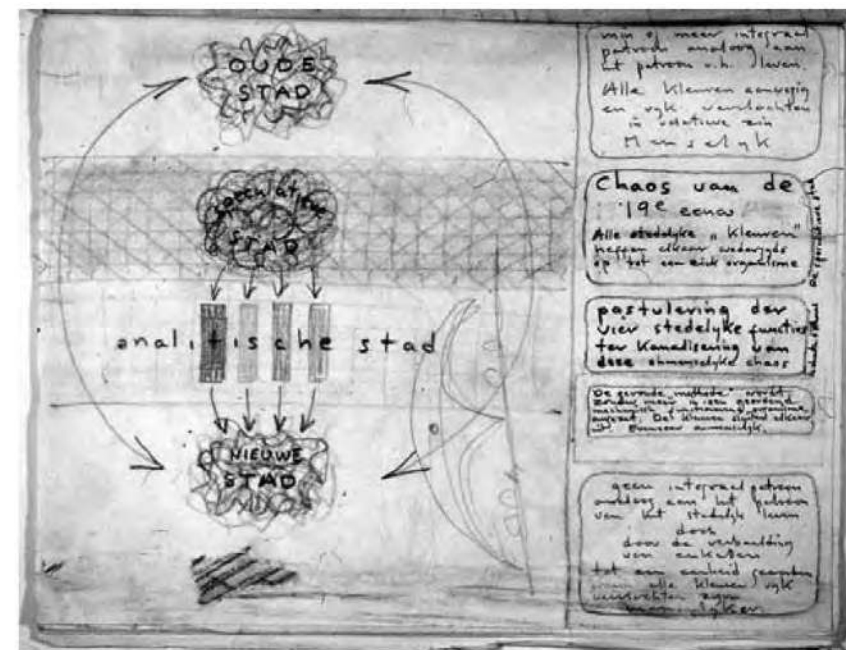
But the Orphanage was more than a highly original and formally compelling building. By conceiving it as a tiny city, Van Eyck also intended it to be a small scale demonstration of another way of town planning. In its design he actually also gave shape to the ideas he developed in the context of Team 10, the dissident group of younger CIAM members he co-founded in 1954. Team 10 opposed the reductive rationalism of CIAM in order to evolve a richer and more humane concept of architecture and urbanism. Contrary to the established CIAM doctrine of splitting up the built environment into four separated functions (dwelling, work, recreation and circulation), Team 10 aspired to evolve a reintegrated city, conducive to human communication. For all their differences, the Team 10 members originally shared an aversion to CIAM's analytical functionalism and a desire to conceive the built environment in terms of human interrelations and associations.

Van Eyck's own part in Team 10 thinking mainly concentrated on two issues: the concept of relation taking form in the 'in-between' and the shaping of number. The 'in-between' was a notion he was familiar with in poetry since his youth, and his concern with number linked up with Bakema's early efforts in the new Rotterdam neighbourhood projects, and Candilis's passionate preoccupation with 'building for the greatest number.'

Relying on Martin Buber's philosophy of dialogue, Van Eyck conceived of the 'in-between' as a place where different things can meet and unite, or more specifically, as 'the common ground where conflicting polarities can again become twin phenomena'. The twin phenomenon, an original



Fig. 20 Van Eyck gave an elaborate account of the emergence of Team 10 out of CIAM in *het verhaal van een andere gedachte* - *The Story of another Idea*, published as the first issue of the 1959-63 series of Forum, the Dutch review he co-edited during that period. © Aldo van Eyck Collection



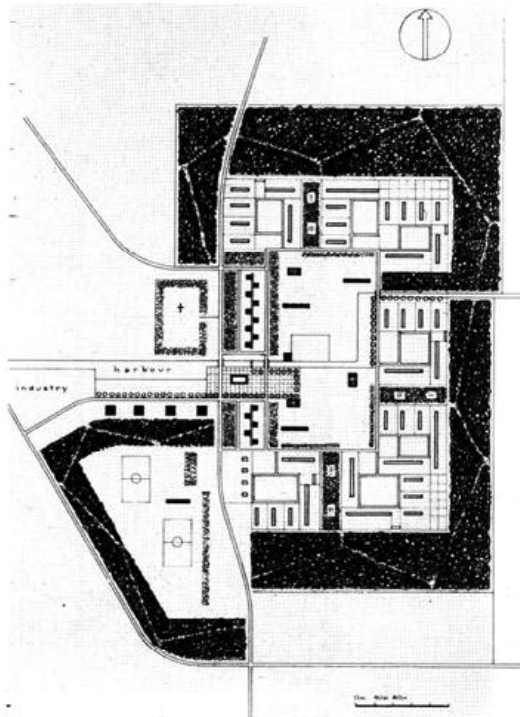


Fig. 21 The village of Nagele, general plan (1948-54) and ground-plan of a school (1954-56). © Aldo van Eyck Collection

concept of Van Eyck's, stems from the insight that real polarities (such as subject and object, inner and outer reality, small and large, open and closed, part and whole) are not conflicting, mutually exclusive entities but distinctive components, two complementary halves of one and the same entity, while conversely a true entity is always twofold. Their in-between should not be considered a makeshift or a negligible margin but something as important as the reconciled opposites themselves. Being the moment where contrary tendencies come into balance, it constitutes a space filled with ambivalence, and thus space that corresponds to the ambivalent nature of man. The in-between is 'space in the image of man', a place that, like man, 'breathes in and out'.

As to the shaping of number, Van Eyck elaborated on the principle he had evolved in his design for the village of Nagele (1948-54): the association of part and whole through structural analogy. He had conceived the village as an open centre surrounded by a housing belt, which was in turn made up of housing units, each consisting of dwellings around a centrifugal square. In a similar way the village's schools were organized around small centrifugal squares, both internally and externally. In fact, this way of structuring marked the start of Van Eyck's 'configurative' approach, a design method aimed at the development of new urban fabrics. And the Amsterdam orphanage constituted, among the other things described above, a further exploration of this approach. He consciously conceived this building as a little city.

Van Eyck expounded his new approach in an elaborate essay entitled 'steps towards a configurative discipline', published in 1962.<sup>6</sup> Starting from the idea that 'a house must be like a small city if it's to be a real house, a city like a large house if it's to be a real city,' he proposed to evolve new cities based on a structural similarity of the successive urban scale levels, more specifically, to conceive urban components on the basis of a ground pattern susceptible of multiplying into a cluster of a similar pattern. These components would be formed in such a way that their identity does not disappear in the process of repetition but, on the contrary, is confirmed and enriched in the very shape of the cluster they compose. The concept also implied that such clusters should similarly be able to be combined into a larger cluster in which their identity was again recovered and intensified. Moreover, the chosen ground pattern had to include room for common facilities in order to allow these to nestle organically at every level of association. The superposition, the



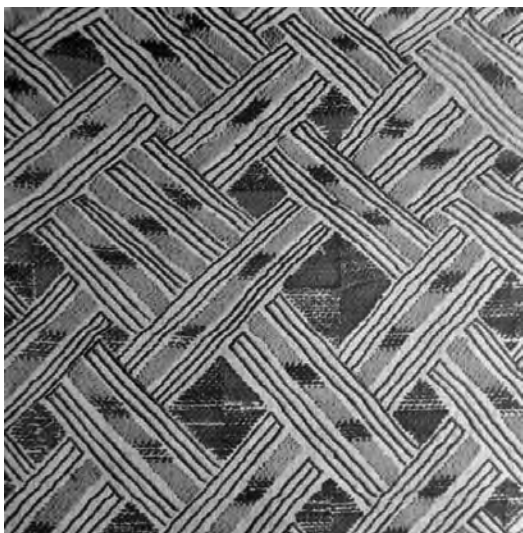


Fig. 22 Bakuba textile. © Aldo van Eyck Archive

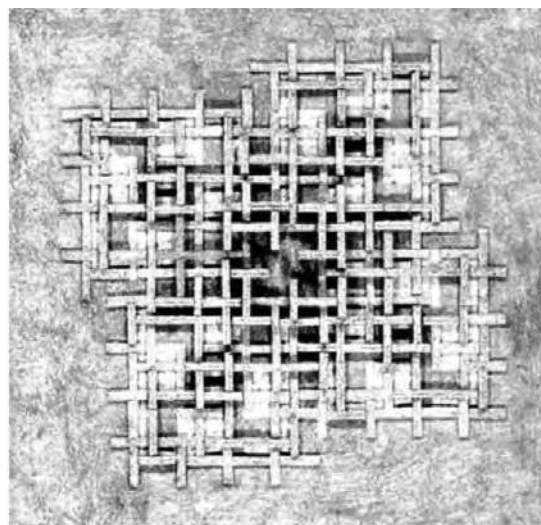


Fig. 24 Piet Blom, district unit of Noah's Ark, 1961-62. © Archive Piet Blom

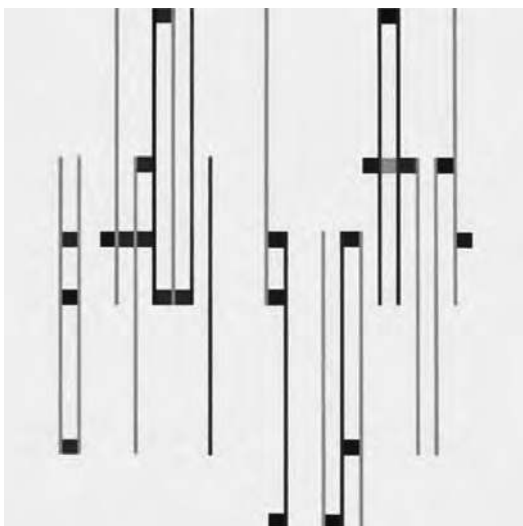
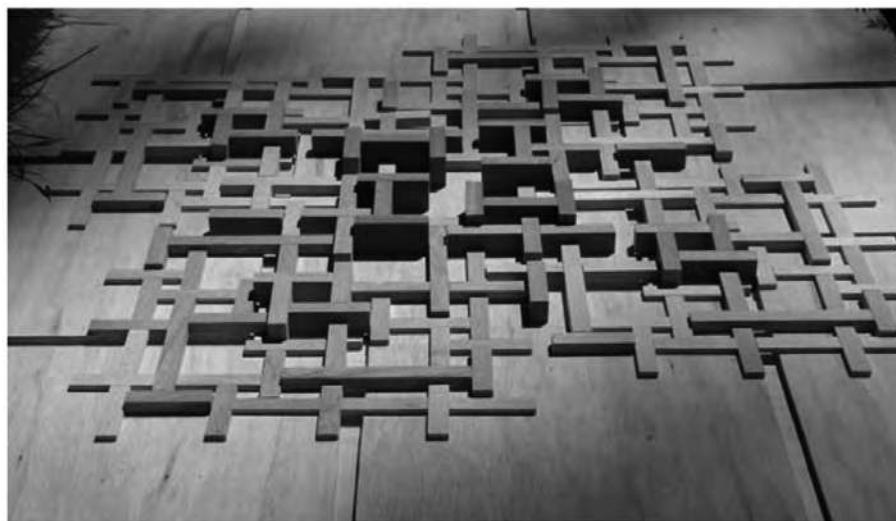


Fig. 23 R.P. Lohse, *Konkretion I*, 1945-46. © Paul Lohse Foundation.



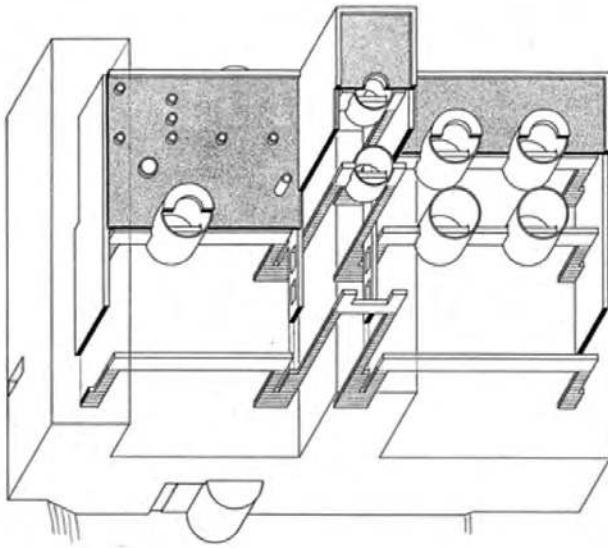


Fig. 25 'Roman Catholic church at Loosduinen near The Hague (1963-69)



interweaving of the different configurative systems, would result in a new spatial kind of urban fabric. 'All systems should be familiarized one with the other in such a way that their combined impact and interaction can be appreciated as a single complex system - polyphonal, multirhythmic, kaleidoscopic and yet perpetually and everywhere comprehensible.'<sup>7</sup>

In the formulation of this vision, Van Eyck referred to the 'aesthetics of number' which he recognized in both the archaic and the modern tradition, seen on the one hand in vernacular settlements and Bakuba textiles, and on the other in the 'concrete art' of the Swiss painter Richard Paul Lohse. Lohse was engaged in structuring formally identical geometrical elements into clusters or 'themes' that could occur in different variations. These themes took over the role of the individual pictorial elements, and were susceptible to be combined into a larger 'Gesamtthema'. Van Eyck felt that Lohse had discovered 'the aesthetic meaning of number'. 'Imparting rhythm to repetitive similar and dissimilar form, he has managed to disclose the conditions that may lead to the equilibration of the plural.'

Van Eyck's configurative vision was also inspired by the work of his former student Piet Blom, in particular 'Noah's Ark', a vast urban project that the latter did in 1962 for his finals at the Amsterdam Academy of

Architecture. Covering an interurban extension between Amsterdam and Haarlem, it was conceived as an urban structure for a million inhabitants, articulated into seventy district units. These units, each of which occupied sixty hectares, were based on a complex geometrical theme consisting of two superimposed motifs: a centripetal square and a centrifugal pinwheel pattern. This theme provided, as it were, the germ of an immense crystalline organism which developed over five levels of association, with the centripetal and centrifugal pattern appearing alternately as 'served' and 'serving' spaces.<sup>8</sup>

Van Eyck acknowledged this project as an excellent actualization of his configurative vision. He identified with it to the extent that he brought it to the next Team 10 meeting that took place in 1962 at the Royaumont Abbey near Paris. Having not received any commission since the Amsterdam Orphanage, Van Eyck was not able to present new projects of his own and decided to expound his configurative vision by means of Blom's project.

Van Eyck's talk and 'Noah's Ark' elicited the most diverse, indeed extreme, reactions. The Team 10 members were astonished by Blom's systematic and complex geometrical fabric. Some expressed their admiration, others were critical, deeming it an all too-literal visualisation

of an idealistic thought pattern. The sharpest reaction came from the Smithsons, who felt that Van Eyck had misled his student, had alienated him from the true foundations of modernism. Alison Smithson found that the complex interlacing would in practice amount to a pre-programming of all functions and activities and to a generalized control by everyone of everyone. And, apparently irritated by the recurrent swastika-like motif in Blom's design, she disparaged it as 'completely dogmatic and German' and as 'completely fascist.'

This assault and the fact that none of the original Team 10 members took Van Eyck's defence, had far-reaching consequences. Van Eyck felt radically repudiated by those he had hitherto regarded as kindred spirits. Their rejection shook his belief in the approach he had patiently developed for ten years. And when Blom learned about the allegation of his project being 'fascist', he was quite thrown off balance. As the rumour of the Smithson's verdict spread in Amsterdam, he felt pursued by it. Driven to despair, he ended up by destroying the whole 'Noah's Ark' project. This traumatic course of events caused a rift between Van Eyck and Blom. Blom went his own way and Van Eyck gradually took a certain distance from the problem of number. While the configurative approach was further developed by Blom, Hertzberger, Van Stigt and others, who made it blossom into a genuine architectural movement (which was soon improperly dubbed 'structuralism'), Van Eyck turned away from the problem of number in order to apply himself to the intrinsic quality



Fig. 26  
Sculpture pavilion in Arnhem (1966)



of architectural space. He continued to explore the new reality in some particularly compelling projects, notably the Roman Catholic church at Loosduinen near The Hague (1963-69), a dynamic junction of a nave- and a crypt-like space, brought to life by the archetypal power of Brancusi-like skylights. The Sculpture pavilion in Arnhem (1966), again a building as a little city, was this time constituted from a fusion of straight and curved walls, convex and concave forms which produce narrow and large spaces, parallel and diagonal directions.

In the meantime the configurative principle found its way to one of the fountainheads of the Modern Movement. In Autumn 1964, Piet Blom received an invitation to Paris from G. Jullian de la Fuente, a Chilean architect who was senior assistant of Le Corbusier, to present his recent work in Le Corbusier's studio in the Rue de Sèvres. Jullian had taken part in the meeting at Royaumont where he had admired 'Noah's Ark', and now he was no less impressed by the new projects Blom brought with him: a holiday village for Ibiza and 'Housing as an urban roof'. The impression made by these designs was such that Jullian and his staff adopted the configurative principle themselves and applied it in the project with which they were currently occupied, the Venice Hospital. Le Corbusier had sketched out no more than a few rough ideas and had left the detailed design work entirely to his staff. They treated the hospital as a structure of centrifugal patterns which is clearly delineated in the roof. The Corbusian architecture, which for once sought to adapt to the morphology of a historic city, resorted to the configurative principle so as to produce an analogue structure of *calli* and *campielli*.

## NOTES

- [1] Charles Jencks, *Modern Movements in Architecture*, Harmondsworth, 1973, pp' 311-318.  
K. Frampton, 'The Vicissitudes of Ideology', in *L'Architecture d'Aujourd'hui*, Jan.-Feb. 1975, no, 177.  
O. Bohigas, 'Aldo van Eyck or a New Amsterdam School', in *Oppositions*, 1977, no. 9, p. 21 -36.  
A.M. Vogt, *Architektur 1940-1980*, Propylaen, Munich 1980, p. 61-63 and p. 72-73.  
H. Klotz, *Moderne und Postmoderne – Architektur der Gegenwart 1960-1980*, Vieweg, Braunschweig, 1984.
- [2] For a more circumstantial discussion of Van Eyck's youth and education, see F. Strauven, *Aldo van Eyck, the Shape of Relativity*, Architectura & Natura, Amsterdam, 1997.

- [3] P. Mondrian, 'Plastic Art and pure Plastic Art', in J.L. Martin, B. Nicholson, N. Gabo, *Circle*, London, 1937, p. 47.
- [4] *Minotaure*, 1933, no. 2.
- [5] Georges Candilis, in an interview with the author, in Delft on 27 October 1981.
- [6] *Forum*, 1962, no. 3, pp. 81-94. Reprint by Joan Ockman in *Architecture Culture 1943-1968*, Columbia Books of Architecture, New York, 1993, pp. 348-360.
- [7] Aldo van Eyck, in *Forum*, 1962, no. 3, p. 92.
- [8] So as to neutralize the hierarchy between these two categories which Louis Kahn had advanced at the Otterlo congress in 1959.