

From the 'Aesthetic of number' to the 'Great number': Giancarlo De Carlo and Aldo van Eyck between Order and Contradiction

Aesthetics Of Number; Great Number; Additive Process; Relationships; Identity

/Abstract

In a series of interviews with Clelia Tuscano in the 1990s, Giancarlo De Carlo revealed his admiration for Aldo van Eyck and the influence the Dutch architect had on him. Albeit starting with a disagreement during the Congrès Internationaux d'Architecture Moderne (CIAM) that took place in Otterlo in 1959, the relationship between the two will subsequently evolve in a crescendo of mutual esteem and exchange, until reaching a sort of ideal mutual understanding that will strengthen one of the most oriented lines of research within the variegated Team 10 group. The central issue into which the two architects channelled most of the energies they spent at the international level responded to the challenges posed by mass society, or to what has been called 'architecture of the great number'. This theme acquired international relevance within the CIAM, starting with the success of the North African grids presented at CIAM IX (1953), and then accompanied the evolution of Team 10 until the XIV Triennale di Milano (1968), dedicated to the "Grande numero".

This essay intends to analyze in parallel the evolution of the design thinking of the two architects, De Carlo and van Eyck, around the theme of 'great number'. In doing so, the attempt is to highlight the affinities and influences, especially those taken by the Italian architect, and to investigate a part of the 'Team 10 thinking' seen from the perspective of two of its most active protagonists.

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In 2018, he obtained a Master's Degree in Architecture at the same University, with a dissertation on the history of contemporary architecture entitled: "The birth of Team 10: alternatives for an urban theory 1947-59" (speakers prof. Alessandro Castagnaro and Fabio Mangone, co-rapporteur prof. Massimo Pica Ciamarra). On that occasion he began to carry out studies on Giancarlo De Carlo, also through archive research at the De Carlo Fund preserved at the IUAV. Since May 2017 he has been a member of the editorial board of the journal *Op. cit.*, directed by Renato De Fusco.

Towards a 'casbah organisée'. From Aix-en-Provence '53 to Dubrovnik '56.

Everything that can be related to the similarities and the elements that, before the last Ciam in Otterlo (1959), eventually led to the agreement between Giancarlo De Carlo and Aldo van Eyck, concerns what can be defined as 'indirect exchanges'. This is because before that date there were no concrete opportunities of interacting between the two architects.

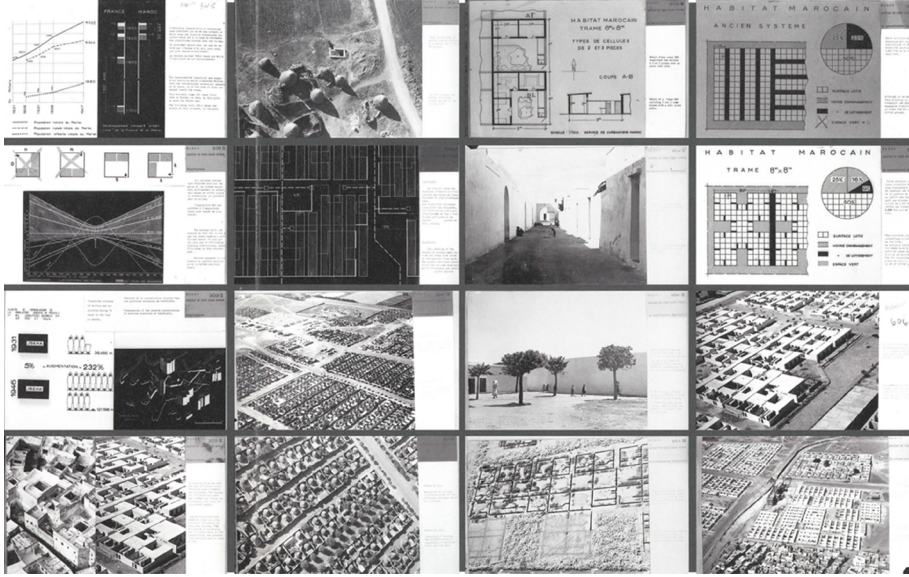
Since 1953, De Carlo's admission to the Italian Ciam group¹ – whose delegates, starting from that year, were Ignazio Gardella and Franco Albini – enabled him to become aware of the main events that characterized the Ciam and the international architectural scene. If one considers that in the same year De Carlo, together with Marco Zanuso and Vittorio Gregotti, was introduced into the new editorial committee of *Casabella-continuità* by Ernesto Nathan Rogers – already a leading member of the Ciam who held leading positions within the organization – it is possible to understand the extent of his attention to the major events of contemporary architecture.

In the same year, the ninth Ciam took place in Aix-en-Provence, and it was the first in which younger generation of architects, although not with a leading role, obtained a certain degree of involvement in the dynamics of the congress: from the inclusion of some of its representatives in the Ciam Council to the possibility of drawing up the minutes of the various commissions, even to the exhibition of projects in an updated edition of the Ciam Grid, thus testifying an unprecedented freedom of interpretation of the presentation methods. There, for the first time, the theoretical and design contributions of some of the future members of the Team 10 'core group' coalesced, with the sole exception of Giancarlo De Carlo. However, as van Eyck himself noted later on, what attracted the attention of the youngest architects were the two North African grids entitled "Bidonville Mahieddine Grid" and "Habitat du plus grand nombre Grid"², presented by the Ciam-Alger and the GAMMA (Groupe d'architectes modernes marocains) groups respectively³. In particular, the second grid [Fig. 1] showed the phenomenon of Moroccan mass housing through a photographic comparison between existing cities and new neighbourhoods, focusing on the analysis of the urban question, as well as of the economic, social and climatic conditions to take into consideration for new types of housing, as in the project for the Carrières

1 See Sara Protasoni, "Il Gruppo Italiano e la tradizione del moderno," *Rassegna* 52 (1992): 28-39.

2 On this topic and, in particular, on the influence of African grids, see Zeynep Çelik, "The ordinary and the third world at CIAM IX," in *Team 10 1953-81. In search of a utopia of the present*, ed. Max Risselada and Dirk van den Heuvel (Rotterdam: NAI Publishers, 2005), 276-279. See also Jean-Lucien Bonillo, Claude Massu, and Daniel Pinson, *La modernité critique: Autour du CIAM 9 d'Aix-en-Provence* (Marseille: Imbernon, 2007).

3 Both groups arose in the late 1940s with the aim of expanding the range of interest in modern architecture beyond Europe. The CIAM-Alger group was led by Pierre-André Emery, while the GAMMA was led by Georges Candilis, who had already taken on the same role within ATBAT-Afrique, the African branch of the interdisciplinary research centre Atelier des bâtisseurs (ATBAT), founded in 1947 by Le Corbusier, Vladimir Bodiansky, André Wogensky and Marcel Py. On these topics see Jean-Louis Cohen, "Il Gruppo degli Architetti Marocchini e 'L'Habitat du plus grand nombre,'" *Rassegna* 52 (1992): 58-67; Marion Tournon Branly, "History of ATBAT and its Influence on French Architecture," *Architectural Design* 35 (1965): 20-24.



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Centrales in Casablanca in which Vladimir Bodiansky, Georges Candilis, Henri Piot and Shadrach Woods took part in the framework of the overall plan drawn up by Michel Ecochard, approved in 1952. The latter's contribution was based on the research already initiated by Ecochard himself a few years earlier, as the director of the Department for Urban Planning of the Protectorate from 1946 to 1952. He developed an interest in large-scale planning as a result of his American experience, introducing this approach into North African politics through experiments that would influence the members of the GAMMA, especially in an attempt to rethink local habits and the specific housing conditions of rural people who had approached cities. In this regard, in line with the character of ATBAT⁴, the study of local culture was conducted according to an interdisciplinary approach through real *in situ* surveys carried out by sociologists and ethnologists. At the level of neighborhood, Ecochard worked by juxtaposing 'neighborhood units', thus generating the continuity of the 'housing grid' through the use of a 8x8-meter modular unit, which could be expanded according to different needs. This grid, which implied geometric rules that could be reproduced at different scales, was based on the model of the 'patio' responding to the customs of the inhabitants of the *bidonville*, in line with the traditional Arab living models. The underlying idea was to redevelop the *bidonville* formed around the existing cities, recovering the traditional housing models. The basic unit of 8 meters per side consisted of two or three rooms arranged in an 'L' shape around an outdoor space. When the juxtaposition of several units formed a larger complex, larger public areas were included and several services appropriate to the scale so defined (such as schools, commercial facilities, administrative buildings, etc.) appeared. Ecochard's method, despite its faith in functionalism and full adherence to the four functions of the *Athens Charter*, contained elements of great openness that would be taken on and developed by members of the Moroccan Ciam group. The grid thus conceived showed a combination between the permanence of the plant order and the flexibility inherent in its possibility of extension.

The plans for the three collective buildings arranged in a 'U' shape designed by Bodiansky, Candilis, Piot and Woods – then members of ATBAT-Afrique – for the

Fig. 1
Fragments of the 'GAMMA grid'. From: Francis Strauven. Aldo van Eyck. The Shape of Relativity. Amsterdam: Architectura & Natura, 1998.

4 See previous note.

Carrières Centrales in 1951 were grounded on Ecochard's work⁵. The peculiarity of their contribution was expressed through an alternative model of housing distribution. This model of collective dwelling, once again based on the reinterpretation of local conditions and shapes, transposed the sequence of patios in elevation, giving rise to a vertical composition in compliance with the needs of land consumption and the desire to reduce the indefinite horizontal extension of the urban fabric. The GAMMA grid presented in Aix was another connecting element between those who would soon be commonly recognized as Team 10 members, as revealed by the Smithsons two years later in the pages of *Architectural Design*:

We regard these buildings in Morocco as the greatest achievement since Le Corbusier's Unité d'Habitation at Marseilles. Whereas the Unité was the summation of a technique of thinking about 'habitat' which started forty years ago, the importance of Moroccan buildings is that they are the first manifestation of a new way of thinking. For this reason, they are presented as ideas; but it is their realization in built form that convinces us that here is a new universal.⁶

Therefore, the importance of the Moroccan and Algerian grids was to be found not only in the distance from the general principles of the Ciam and, in particular, from the rational-functionalist interpretation of the housing typology as an abstract entity, but also in the focus on the 'collective dimension of living'. In addition, the emergence of the African paradigm, which gave rise to a model of analysis that looked above all at the typical local living conditions, led to a growing attention towards what was called 'minor' or 'spontaneous' architecture. This theme was a further commonality between the two architects well before they took part in Team 10. As early as 1947, van Eyck went on a series of trips to discover the settlement patterns of the indigenous peoples mostly from North African villages, with a particular interest in the Dogon culture and in the relationship between inhabitants and their living conditions⁷. From this he drew his interest in dual phenomena, in the relationship between the individual and the general, between the house and the village, and in the beneficial effects of the combination of harmony and disorder; in short, in all the concepts that would inform his 'configurative disciplines' in 1962.

De Carlo's interest in minor architecture developed thanks to Franco Albini and Giuseppe Pagano, whom he met during the years of the Resistance. The two architects – together with Rogers – were his primary architectural references, even before he got his degree in architecture in 1949. He trained with

5 On these projects see Michel Ecochard, "Habitat musulman au Maroc," *L'Architecture d'Aujourd'hui* 60 (1955): 36-40; Cohen, "Il Gruppo degli Architetti Marocchini e 'L'Habitat du plus grand nombre,'" 58-67.

6 Alison and Peter Smithsons, "Collective Housing in Morocco," *Architectural Design* 25 (1955): 2.

7 As evidenced by the photos and sketches made by van Eyck, between the late 1940s and early 1960s, he travelled to the North African villages of Tademait, Timimoun, Aoulef, Sidi Aissa, Timoudi, Ogol and Banani. He also visited the Taos Pueblo in New Mexico. See Francis Strauven, *Aldo van Eyck. The Shape of Relativity* (Amsterdam: Architecture & Nature, 1998); Aldo van Eyck, "L'interiorità del Tempo" in *Il significato in architettura*, ed. Charles Jencks and George Baird (Bari: Dedalo, 1974), 204-55; Aldo van Eyck, "Architecture of the Dogon," *Architectural Forum* 115 (1961): 116-121.

Albini from 1947 to 1949⁸ and, thanks to the interests and studies of Pagano, with whom he had an intense relationship, he acquired a certain sensitivity for spontaneous architecture⁹. Thus De Carlo had the opportunity to study the urban fabric of minor centres, coming into contact with natural additions and with the interstitial spaces formed by them; so with this work he noticed that spontaneous architecture was a way of trying to understand the nature of the link between architecture and the environment. In 1954, in regard to the papers published in *Casabella-continuità* on the trulli of Alberobello and the villages of Cameroon, De Carlo showed interest in the diversity of these settlements and in the coherence of the relations established between the inhabitants of those territories and their spatial configuration, stigmatizing the interventions of new construction:

*“La somiglianza sta nelle case che le amministrazioni coloniali o i vari enti per le zone depresse sostituiscono a questi villaggi e a queste case con l'intento presuntuoso di civilizzarne gli abitanti e col risultato di ridurli a quell'inerte livellamento che costituisce l'unico apporto di cui è capace l'organizzazione burocratica delle nostre civiltà.”*¹⁰

Returning to the theme of the 'great number', this was at the centre of the theoretical contribution that van Eyck made in Aix-en-Provence on the basis of what had been published in *Forum* in the previous June, in which the Dutch architect drew on the compositional process of the paintings *Konkretion I* (1945-46) [Fig. 2] and *Konkretion III* (1947) by the Swiss painter Richard Paul Lohse, whom he met during his stay in Zurich from 1942 to 1946¹¹. As reported by Jos Bosman¹², in the journal *TEAM*, founded after Hoddesdon congress, in November 1952 Lohse explained the expressive quality of numbers, focusing on the fact that by imparting a rhythm to similar elements it is possible to understand the conditions of equilibrium of the plural: “the individual (the singular) less circumscribed within itself will reappear in another dimension as soon as the general, the repetitive is

8 See Francesco Samassa, “«Un edificio non è un edificio non è un edificio». L'anarchitettura di Giancarlo De Carlo» in *Giancarlo De Carlo. Percorsi*, ed. Francesco Samassa (Padova: Il Poligrafo, 2004), 131. It is also interesting to note that in those years Albini was working on the hotel-refuge Pirovano in Cervinia. See Fabrizio Brunetti, “Dal QT8 al P.I.M. Dagli anni della ricostruzione a quelli della ‘grande speranza’”, in *Giancarlo De Carlo*, ed. Fabrizio Brunetti and Fabrizio Gesi (Firenze: Alinea, 1981), 33-70.

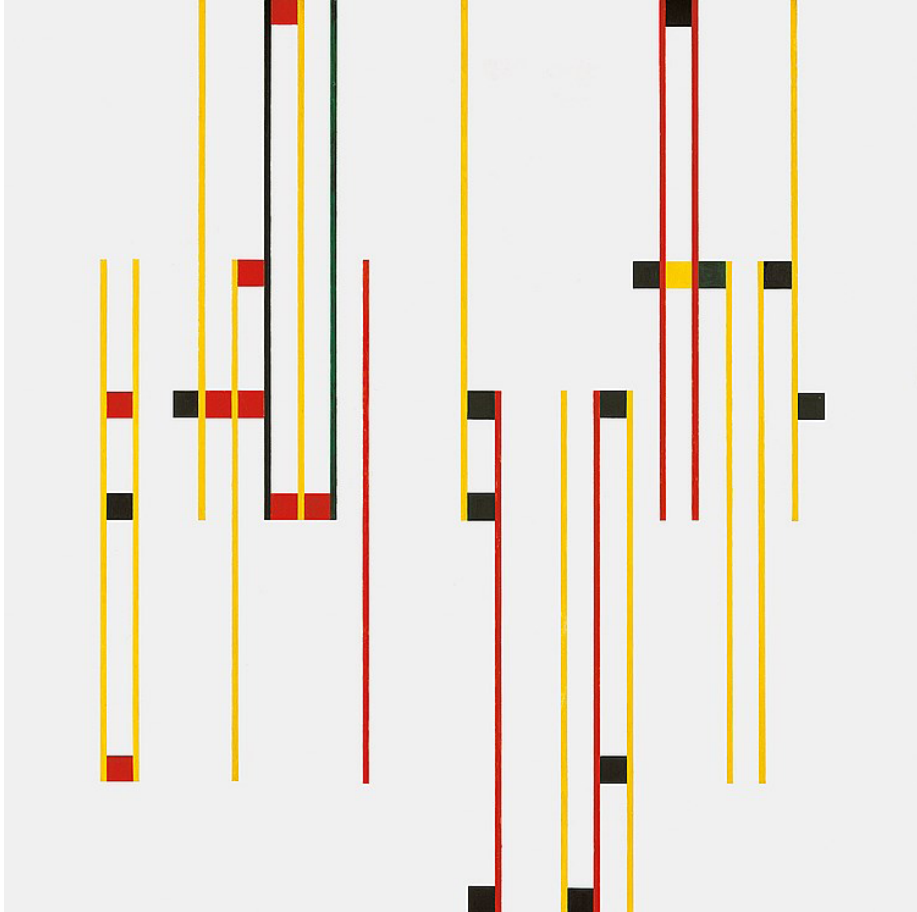
9 As it is known, Pagano organized the “Mostra dell'architettura rurale” at the VI Triennale di Milano in 1936, which influenced De Carlo when he curated the “Mostra dell'architettura spontanea” with Ezio Cerutti and Giuseppe Samonà at the IX Triennale di Milano in 1951.

On the first exhibition see Giuseppe Pagano and Guarniero Daniel, *Architettura rurale italiana* (Milano: Ulrico Hoepli Editore, 1936); on the second exhibition see Giancarlo De Carlo, “Mostra dell'architettura spontanea” in *Nona Triennale di Milano. Catalogo*, ed. Agnoldomenico Pica (Milano: S.A.M.E., 1951), 89-97. Moreover, Van Eyck was also actively involved in this Triennale. In fact, together with Jan Rietveld – son of the more famous Gerrit – he designed the layout of the Dutch section, based on the presentation of the main works responsible for the development of *Nieuwe Bouwen* before the war, with a second part dedicated to the continuation of this strand after 1940.

10 “The similarity lies in the houses with which the colonial administrations or the various bodies in charge of depressed areas replace these villages and these houses with the paternalistic intent of civilizing their inhabitants and with the result of reducing them to that inert levelling which is the only contribution the bureaucratic organization of our civilizations is capable of [Translated by the Author].” It is interesting to note, moreover, the underlying criticism of Western civilization, unable to interpret and enhance the peculiarities of those settlements. Giancarlo De Carlo, commentary to Enzo Minchilli, “I Trulli”, *Casabella-continuità* 200 (1954): 19.

11 See Francis Strauven, *Aldo van Eyck*, 95-99.

12 Cf., J. Bosman, “I CIAM del dopoguerra: un bilancio del Movimento Moderno”, *Rassegna* 52 (1992): 6-21.



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subordinated to the laws of dynamic equilibrium, i.e. harmony in motion.¹³ The problem concerned the control of 'great quantity', i.e. the possibility of organizing multiplicity in order to avoid the risk of monotonous and unidentified aggregations such as those responding to the 'accumulative nature of today's cities'. In these terms, van Eyck reopened the matter at CIAM 9:

In order that we may overcome the menace of quantity now that we are faced with *l'habitat pour le plus grand nombre*, the aesthetics of number, the laws of what I should like to call 'Harmony in Motion' must be discovered. Projects should attempt to solve the aesthetic problems that result through the standardisation of constructional elements; through the repetition or grouping of such housing units, similar or dissimilar; through the repetition of such housing groups, similar or dissimilar (theme and its mutation and variation).¹⁴

Until the date of the Aix Congress, Giancarlo De Carlo had approached the question of 'great number' autonomously, without international references. In the first half of the 1950s, most of his projects were for the INA-casa. As part of those projects, he began to investigate the possibilities of additive compositional method, based on the iteration of cellular units. In particular, it was in the project for a nucleus of residences in Cesate (1953) [Fig. 3] that De Carlo took a step forward in this sense, albeit in a way that was still too abstract from the context. Here emerged the desire to respond in a similar way to problems

¹³ Aldo van Eyck, "Lohse and the aesthetic meaning of number. Translation of a Statement published in Forum, June 1952," in *Aldo Van Eyck Writings. Collected Articles and Other Writings 1947-1998*, ed. Vincent Ligtelijn, Francis Strauven (Amsterdam: Sun Publishers, 2008), 56.

¹⁴ Aldo van Eyck, "Aesthetic of Number. Statement at CIAM 9, Aix-en-Provence, 1953," in *Aldo Van Eyck Writings*, 56.

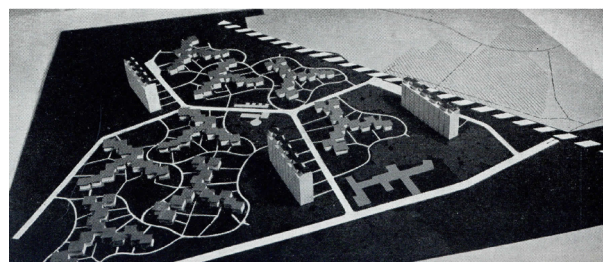
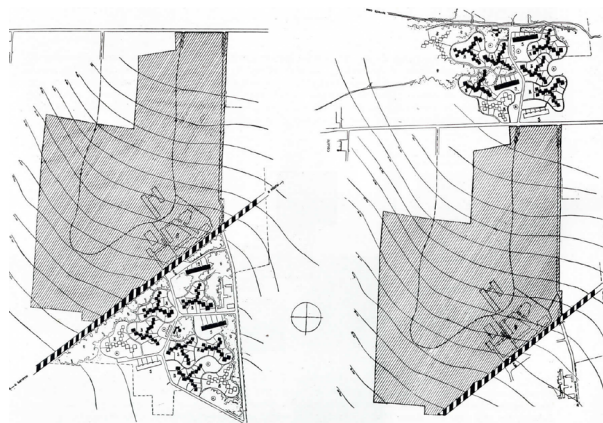
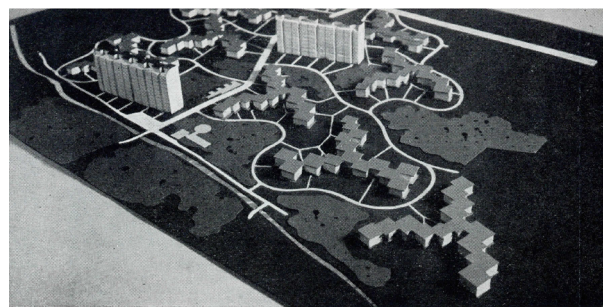
Fig. 2
Richard Paul Lohse, *Konkretion I* (1945-46).

related to housing and urban planning, according to a principle of inseparability between the two disciplines that would characterize an important theoretical trace of both architects. This project was based on the adoption of elementary building types, aggregated according to different associative modalities, but responding to an open and elastic scheme, so that it could be modified for a precise definition in the application phase. The most interesting thing is the passage from a housing unit to its repetition to form a neighborhood anticipating, albeit in an embryonic way, the 'reciprocity' theorized by van Eyck between the structure of the house and that of the city, and thus the inseparability between architecture and urban planning. Moreover, in De Carlo's description of the project there already were the first elements of the theme of 'participation', in line with what was being formulated in the Ciam, in particular by van Eyck, regarding the need to take into account potential future expansion in the design of urban settlements ('growth and change'):

*Il lavoro di progettazione non si risolverà nella creazione di un organismo astratto per una immaginata generalizzazione dei gruppi umani, ma nell'adeguamento elastico di un metodo e di una concezione formale alle reali esigenze di abitanti veri. Gli abitanti stessi con le loro scelte e la prerogativa di far giocare il peso delle loro esigenze, contribuiranno direttamente a determinare la forma finale dell'organismo nel quale vivranno.*¹⁵

The description of Cesate's project, reported on the pages of *Casabella-continuità*, followed those of previous housing projects in Sesto San Giovanni and Baveno. The transition from the project in Sesto San Giovanni to the second one in Baveno marks a decisive turning point in the approach to the housing theme. In the article dedicated to them, the architect criticized the 'rational cornerstone' on which the first intervention rested - challenged moreover, by the changes made by the inhabitants themselves - whose primary concern was to "provide objective conditions of habitability". With regard to the subsequent project, De Carlo argued that:

"Conta l'orientamento e conta il verde e la luce e potersi isolare, ma più di tutto conta vedersi, parlare, stare insieme. Più di tutto conta comunicare.



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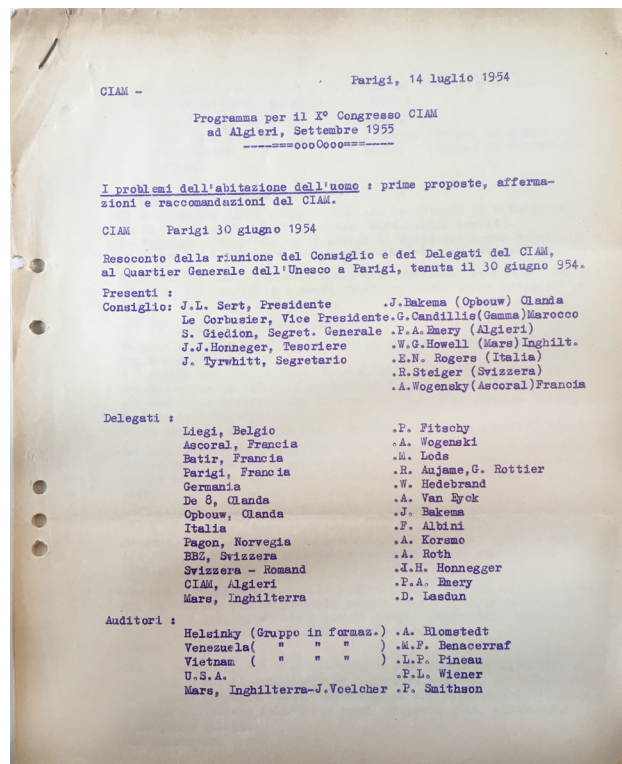
15 "The design work will not result in the creation of an abstract organism for an imagined generalization of human groups, but in the flexible adaptation of a method and a formal conception to the actual needs of the actual inhabitants. The inhabitants themselves, with their choices and the prerogative have their needs factored in, will contribute directly to determining the final form of the organism in which they will live [Translated by the Author]." Giancarlo De Carlo, "Studio per un nucleo residenziale," *Casabella-continuità* 201 (1954): insert between pp. 32-33.

Fig. 3
Giancarlo De Carlo, Studio per un nucleo residenziale a Cesate, 1953. From: *Casabella-continuità* 201 (1954).

Con questa esperienza ho progettato la casa di Baveno.¹⁶

This statement anticipated what De Carlo would explain much later in Franco Bunčuga's well-known book interview, in which the explicit reference to van Eyck is intended to highlight a tangible common intention between the two architects:

In particolare van Eyck si preoccupava di configurare lo spazio in modo da favorire la comunicazione. Ripudiava le codificazioni del Movimento Moderno (a casa l'uomo mangia, cucina e dorme, mentre invece lavora e gioca da un'altra parte) e cercava le basi di un modo di abitare complesso in luoghi dove tutte le attività possano intersecarsi, come accade nella vita, come deve accadere nella vita. Nella sostanza il nostro era un atteggiamento contro la specializzazione – dello spazio come della vita umana – che consideravamo pericolosa perché appiattisce gli individui e genera disgregazione sociale.¹⁷



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After Ciam 9, the preparatory phase of Ciam 10 began, which took place in Dubrovnik in 1956, during which Team 10 was formed, or rather was recognized as such¹⁸. The success of the African paradigm – fuelled, in particular, by van Eyck's position – proved so successful that Algiers was initially chosen as the venue for the for Ciam 10 [Fig. 4], a possibility was later ruled out due to the onset of the Algerian War of Independence. Also in this preparation phase there were important points of convergence between van Eyck and the Italian Ciam group¹⁹, as both rejected the classification of the Smithsons based on the

16 "Orientation, green spaces, light, and the possibility to isolate oneself do matter, but what matters the most is to see each other, to talk to each other, to be together. Communication is more important than anything else. With this experience I designed the house of Baveno [Translated by the Author]." Giancarlo De Carlo, "Casa d'abitazione a Baveno," *Casabella-continuità* 201 (1954): 29.

17 "In particular, van Eyck was concerned with configuring the space in such a way as to facilitate communication. He repudiated the codifications of the Modern Movement (at home man eats, cooks and sleeps, while instead he works and plays elsewhere) and sought the foundations of a complex way of living in places where all activities can intersect, as happens in life. In essence, ours was an attitude against specialization – of space as well as of human life – which we considered dangerous because it flattens individuals and generates social disintegration [Translated by the Author]." Franco Bunčuga and Giancarlo De Carlo, *Conversazioni su architettura e libertà* (Milan: elèuthera, 2010), 78.

18 It was during the preparation phase for Ciam 10, in which De Carlo did not participate, that he, representing young Italians, took part in a preliminary meeting held at La Sarraz in 1955 together with Rogers, representative of the historic group, and the other Ciam delegates. On this occasion, De Carlo said: "Team X officially never existed. He has never drawn up a birth certificate or written a manifesto. [...] But if at least one wanted to know when it was born, my version is that it was born at the pre-conference that had been held in 1955, in the Castle of La Sarraz [...]. On the morning of the first day the elders – Giedion Max Bill, Tyrwhitt, Wogenscky, Rogers, maybe Roth and a few others – had locked themselves in a room and by mid-afternoon had not yet come out to tell us how they had decided to discuss it. Then we, fed up, began to argue on our own and, who had them, to show others some heliographic copies of their work. That's how Team 10 was formed [Translated by the Author]." Lamberto Rossi, *Giancarlo De Carlo. Architetture* (Milan: Arnoldo Mondadori Editore, 1988), 239.

19 The contribution of the Italian group was of great importance for the organization of Ciam 10, in particular as regards the presentation methods of the projects. Specific information can be found in: *Proposte del Gruppo Italiano*, pp. 1-3, Università Iuav di Venezia-Archivio Progetti, fondo Giancarlo De Carlo, seg. De Carlo-atti/030, fascicolo: CIAM 1955-1966.

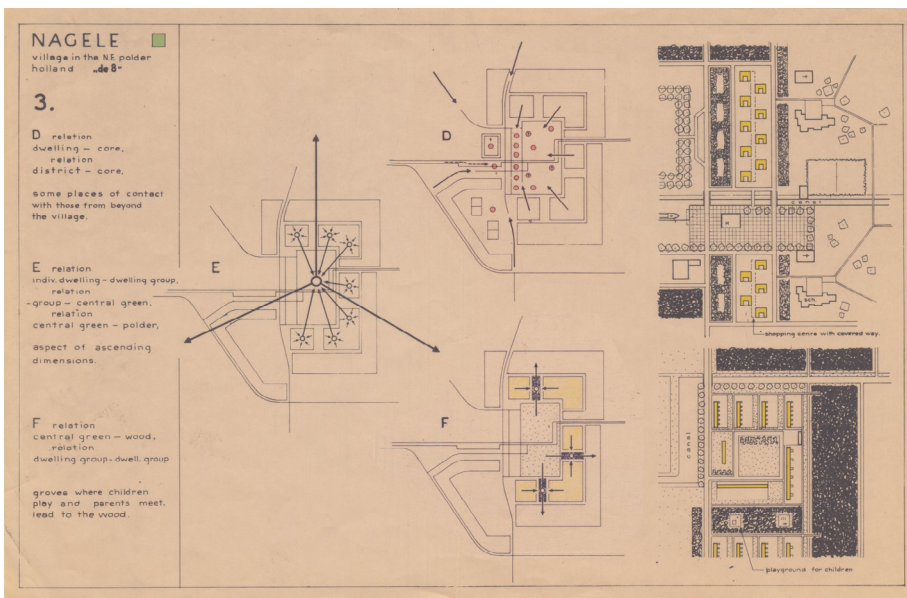
Fig. 4
"Programma per il X Congresso CIAM ad Algeri, Settembre 1955". From: Università Iuav di Venezia-Archivio Progetti, fondo Giancarlo De Carlo.

'four levels of association', illustrated in the "Doorn Manifesto" of 1954. This is the well-known 'city-town-village-isolate' diagram borrowed from Patrick Geddes' "Valley Section" and intended to replace the principle of functional zoning expressed in the *Athens Charter*. In particular, in the document entitled *Orientation* drafted by van Eyck in October 1954 as an alternative guideline to the English approach, some themes emerged that would enter, shortly thereafter, De Carlo's theoretical and design imaginary. Among them, the most important are: 'the great reality of doorstep or in-between', i.e. the need to recognize human relationships and those between people and things as the main aspect of design; 'the aesthetic of number' which, as already mentioned, represented a strategy to address the threat of mass society and to respond 'architecturally' to the problem of standardization; 'growth and change', i.e. the introduction of time as a positive factor of a project, to be understood as the possibility of providing flexible planimetric schemes so as to allow its development by virtue of the needs of the inhabitants and of natural transformations.

On arriving at Ciam 10 in Dubrovnik, which took place between August 3 and 13, 1956, the division between the old school and the new generation in command became immediately clear, not only because they were each on the respective congress commissions, but also because of the absence of some of the historical protagonists of Ciam such as Le Corbusier, Gropius and van Eesteren. On that occasion, van Eyck presented two groups of panels: one for himself and the other together with his group, the De 8 from Amsterdam²⁰. The latter case, represented in the "Nagele Grid", concerned the construction of a new village in the Noordoostpolder, the largest single drained strip of land in Holland after the Second World War. From the very first moment, van Eyck's contribution was distinguished by a non-hierarchical conception of the different classes of workers included in the plan and by a more general aspiration to a level of social equity to be expressed through the spatial composition of the project. Thus, he gave shape to his ideals through a concept he defined as "a space within space", a settlement with a predominantly spatial character capable of standing out within the boundless, flat space of the polder. Here too, as in the project for Pendrecht II, presented in Hoddesdon in 1951 by the Rotterdam-based Ciam group, Opbouw – of which Jacob Berend Bakema was one of the leading representatives – there was a cross-reference between the common open spaces created within the individual 'units' and the larger one containing the core of public activities²¹. The substantial difference between the two projects lies in the different way in which the harmonic relationship of the parts is

20 See Dirk van den Heuvel, "Lost Identity Grid, 1956", in *Team 10 1953-81*, 56-57; Max Risselada, "Nagele Grid, 1956", in *Team 10 1953-81*, 58-59. See also Annie Pedret, *Team 10: an archival history* (London – New York: Routledge, 2013), 179-191.

21 For Bakema, relationships between things were more important than things themselves. He developed this 'relational conception' of architecture from the early 1940s onwards. Within projects such as Pendrecht I and II he pursued this objective through a principle of spatial continuity aimed at connecting people. His conceptions had some influence on Van Eyck's thinking: "The 'Social-Cosmic-Spatial Composition' he has in mind is the three-dimensional expression of social relations between liberated individuals in an open society. The spatial openness and flexibility of architecture must give expression to human liberty [...]." Francis Strauven, *Aldo van Eyck*, 218.



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experienced, between them and as a whole, as explained by Francis Strauven:

“Le unità di Pendrecht erano identiche tra loro e coordinate in aggiunta, mentre le unità di Nagele erano tutte diverse e unite secondo un modello più complesso e non ripetitivo. Le diverse strisce residenziali erano unite a formare da luogo a luogo versioni nuove dello stesso tema: l’unità centrifuga, il cui spazio interno era via via risolto come giardino o come piazzetta.”²²

Particularly significant was the third of the four panels on display, specifically dedicated to the representation of the types of relationships that the project intended to foster, such as the one between the core and the housing groups or between the latter and individual housing units [Fig. 5].

His individual presentation, entitled “Lost Identity Grid”, again composed of four panels, was focused on some of the Playgrounds projects scattered across the city of Amsterdam, in which the issue of the identity of the citizens with respect to their urban context was raised, starting from the privileged relationship that children establish with it. At the date of the tenth Ciam, 10 years after his involvement in the Urban Planning section of the Amsterdam Department of Public Works, van Eyck could already boast the realization of about twenty projects for children’s outdoor play and experimentation with different compositional techniques. The photographs expressed a desire to bring back fragments of real life that testified to the concrete results of his work. The focal point of the presentation was the human interrelationships and the different ways in which they occur. The photographs depicted general views and some details of playgrounds – Zaanhof (1948-50), Frederik Hendrikplantsoen (1949), Saffierstraat (1950-51) – whose compositional aspects have a two-fold reference: on the

22 “Pendrecht’s units were identical with each other and coordinated in addition, while Nagele’s units were all different and united according to a more complex and non-repetitive model. The different residential strips were joined together to form new versions of the same theme from place to place: the centrifugal unit, whose interior space was gradually resolved as a garden or a small square [Translated by the Author].” Francis Strauven, “Il contributo olandese: Bakema e Van Eyck,” *Rassegna* 52 (1992): 53.

Fig. 5

Third panel of four of van Eyck’s ‘Nagele Grid’ as presented at Ciam 10. From: Max Risselada and Dirk van den Heuvel, ed. *Team 10 1953-81. In search of a utopia of the present.* Rotterdam: NAI Publishers, 2005.

one hand, those from the artistic avant-garde, with particular reference to the works of the sculptor Constantin Brancusi and the couple Hans Arp and Sophie Taeuber, whose elementary simplicity, the use of biomorphic forms and decentralized symmetry, as well as the complex composition of regular three-dimensional forms such as the cube and the cylinder, were appreciated by van Eyck; on the other hand, a further source of inspiration can be found in the primitive forms observed during visits to African villages, such as those of the Dogon, from which van Eyck drew the inspiration for the fusion of biomorphic and geometric forms in a 'dynamic order'. All this almost always taking advantage of the opportunities arising from those 'in-between spaces', i.e. those interstitial places resulting from the damage of war and characterized by prolonged underutilization, which qualified as 'privileged relationship spaces'.

These projects, such as the Children's Home mentioned below, include the main points of contact between the Dutch architect and Giancarlo De Carlo, in particular with regard to the primacy of 'open space as a privileged place for social relations', together with the theme of 'identity', which De Carlo pursued in other ways, more oriented towards the history of places and the reinterpretation of the space-formal characteristics of the built environment.

Designing the 'great number'.

The last Ciam and the start of the personal path of Team 10.

Immediately after the Dubrovnik Congress, a long period of thinking on the future of the Ciam and the need for its reorganization ensued, which resulted in the choice to keep the old name with the addition of the subtitle "Research Group for Social and Visual Relationship", so as to evoke the new paradigm on which it was based. This choice was accompanied by the termination of the national groups, the Council and the standing committees, setting the new model on a non-hierarchical structure in which participants presented themselves in their personal capacity. Thus, Ciam 11 – later renamed 'Ciam '59' to mark the difference between the old and the new organization – saw the Netherlands as the host country and the Kröller-Muller Museum in Otterlo as the venue of the meeting held in September 1959.

Among the most significant events, one in particular played a pivotal role in the Congress and saw the members of the Italian group as protagonists: Giancarlo De Carlo, Ignazio Gardella, Vico Magistretti and Ernesto Nathan Rogers. This is the controversy raised by Smithson and Bakema about the criticality of the Velasca Tower designed by BBPR and presented by Rogers. The project in Milan offered the opportunity to tackle one of the most important theoretical outcomes of the anti-functionalist protest, namely the reinterpretation of local specificities. The accusation that Peter Smithson made against Rogers consisted of a supposed desire for historicist formalism, full of both aesthetic and ethical meanings, which according to the English architect were incapable of expressing the nature and ambitions of the new society. The same criticisms

involved the work of all the four Italian architects, thus also including De Carlo's contribution. He presented the project of a building for housing and shops built in Matera between 1956 and 1957, in the main street of the "Spine Bianche" district, whose overall plan was led by Carlo Aymonino. It should be noted that this building represents an isolated episode since De Carlo had participated in the national competition with a proposal – which was discarded, but which earned him the collaboration with the winning group – based on the neighborhood unit²³, in the wake of the Cesate intervention. Also in this case, the spaces obtained from the repetition of modular cells take on a fundamental role in the aims of the project, having a more communal connotation²⁴.

The language used in the aforementioned building showed the reworking of some local characteristics, albeit with some innovative accents concerning the spatial distribution. This reworking, in Peter Smithson's accusation, put De Carlo and Rogers together on a similar conservative view. To van Eyck Matera represented an example of 'casbah' that De Carlo was unable to interpret "because he saw it as a symbol of oppression and poverty."²⁵

The Italian architect responded to the accusations of betrayal made by Bakema and Peter Smithson with criticism of their work concerning the "sociological rigorism" and "figurative utopianism" of the former, and the "ideological schematism" of the latter. He was also critical of van Eyck, despite the positive opinion expressed on the Orphanage project²⁶. This aspect is of great importance for the interpretation of the formal similarities that will emerge, as we will see later, in some projects made by De Carlo after Otterlo.

Perhaps more important than his design contribution is the report he presented at Otterlo entitled *Memoria sui contenuti dell'architettura moderna*. In it, De Carlo unveiled his willingness to overcome the contradictions of the Modern Movement, immediately aligning his position with that of the other members of Team 10, albeit from a different angle, as can be seen from this passage: "What is really needed is the direction of modern architecture towards new 'national paths' which allow it to become part of the active context of the Society it must serve, and to carry forward that same progressive action which the internationalism of the twenties proposed doing by other means."²⁷

23 See Giancarlo De Carlo, "Il risultato di un concorso," *Casabella-continuità* 231 (1959).

24 On these project see Fabrizio Brunetti and Fabrizio Gesi, *Giancarlo De Carlo*, 97-99; Federico Bilò, *Tessiture dello spazio. Tre progetti di Giancarlo De Carlo del 1961* (Macerata: Quodlibet, 2014).

25 Clelia Tuscano, "Everybody has his own story. Interview with Aldo van Eyck," in *Team 10 1953-81. In search of a utopia of the present*, ed. Max Risselada and Dirk van den Heuvel (Rotterdam: NAI Publishers, 2005), 328.

26 "A convinced follower of Neoplasticism and a strong supporter of the autonomy of form – to which he attributed magical virtues and meanings – he unintentionally carried the toughest attack on those rationalist assumptions which, together with his Dutch colleagues, he declared he wanted to support. It should be noted, however, that, despite the contradictions, the project he presented for a children's home in Amsterdam was certainly one of his most valuable. [...] His personality has been considerably consolidated in recent years and the contribution he has made through his work [...] and the dissemination of his ideas have placed him in the forefront of contemporary architecture [Translated by the Author]." Giancarlo De Carlo, "L'ultimo convegno dei CIAM. Le conclusioni," in *Questioni di architettura e urbanistica*, ed. Giancarlo De Carlo (Urbino: Argalia, 1964), 96.

27 Giancarlo De Carlo, Report given at the Otterlo conference – 7th – 15th Sept. 1959, p. 13. Università luav di Venezia-Archivio Progetti, fondo Giancarlo De Carlo, seg. De Carlo-atti/030, fascicolo: CIAM 1955-1966. Trad. it. Giancarlo De Carlo, "L'ultimo convegno dei Ciam con una «Memoria sui contenuti dell'architettura moderna»,» in *Questioni di architettura e urbanistica*, ed. Giancarlo De Carlo (Urbino: Argalia, 1964), 88-89.

Unlike De Carlo, who was participating for the first time in an official capacity in Ciam, van Eyck came to Otterlo with a series of panels that encompassed a theoretical and design experience already capable of expressing some of the main theoretical issues that would inform his subsequent experiments. But before discussing the merits of his individual contribution, it is necessary to dwell on an initiative that saw the Dutch architect among its greatest protagonists and that found in the venue of the Congress of Otterlo a first important opportunity for dissemination. This is the relaunch of the Dutch journal *Forum* in 1959²⁸. The journal, which produced a strong impact on the Dutch architectural culture of those years, was immediately characterized as the main tool to spread the paradigm shift brought about by Team 10²⁹, specifically based on the contribution of the Dutch members of the group modelled on van Eyck's vision. As Hertzberger would say a few years later:

*"Lo scopo era di dimostrare che le possibilità derivanti dal mutamento e quelle basate sulla permanenza non sono necessariamente in contrasto, ma possono anzi potenziarsi a vicenda."*³⁰

At Otterlo, a pre-publication of the seventh issue, entitled *The Story of Another Idea*³¹, was presented and distributed to the participants in the Congress, which embodied the spirit of the new editorial series. At the end of the essay, van Eyck illustrated the five Dutch projects capable of expressing the new themes in a concise reasoning: the experiments of the Pendrecht I-II and Alexanderpolder I-II districts of the Opbouw group and a project by Piet Blom³².

As for his individual contribution, with his theoretical section entitled *Is Architecture Going to Reconcile Basic Values?* the Dutch architect tried to draw a line of continuity not so much with the tradition of the Ciam, but with a certain mid-century avant-garde segment that to the Dutch architect represented

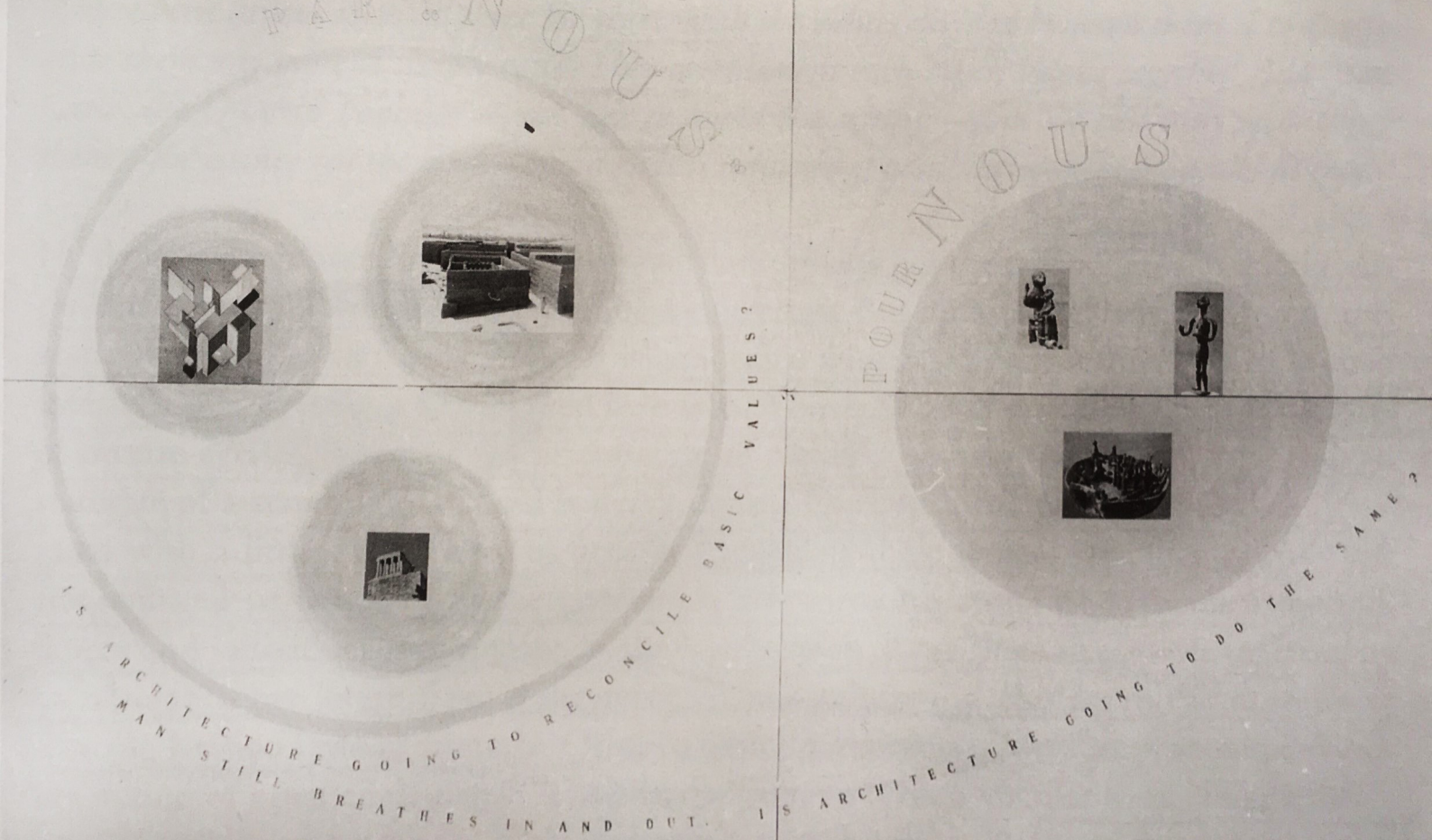
28 From No. 7 of 1959 to No. 3 of 1963, the new editorial staff of the magazine, made up of Bakema and Van Eyck, architects Dick Apon, Gert Boon and Herman Hertzberger, pedagogue Joop Hardy and graphic designer Jurriaan Schroferde, produced 17 dossiers. The composition of the group and the informal and non-hierarchical approach of the editorial staff foreshadowed the character of the future meetings of Team 10 and the Otterlo Congress itself, in which only Bakema played a preponderant role by virtue of her organizational responsibilities.

29 Like *Forum*, but with a greater time projection, the same role was taken on by the magazine *Le carré bleu* founded in 1958 by the Finnish CIAM group. Giancarlo De Carlo will actively participate through the publication of articles since 1960.

30 "The aim was to show that the possibilities resulting from change and those based on permanence are not necessarily at odds with each other, but rather can reinforce each other [Translated by the Author]." Herman Hertzberger, "Aldo van Eyck," *Spazio e Società* 24 (1983): 80.

31 The essay retraced in a polemical way the entire parable of the Ciam, tracing, on the one hand, the progressive change of the organization in a more static form and, on the other, the parallel contributions that, starting from the first presence of Bakema and van Eyck at Bridgewater's Ciam in 1947, contributed to the gradual emergence of Team 10. Criticism of the Ciam was carried out in a timely manner, analyzing the consistency of the various meetings that marked its history. Thus, if the account of the 'early Ciams' oscillated between positive judgements regarding a certain degree of interaction with the artistic avant-garde and other negatives regarding the analytical principles and separation of the 'functional city', the history of the post-war Ciams was reviewed in light of the development of what the author defines as 'other ideas'. This expression was intended to summarize the conceptual scope introduced by Team 10 within Ciam, thus producing a Dutch version of the group's ideas and one of the first systematic contributions on the subject. The 'other idea' was based on a relative and not deterministic conception of reality, and considered the city as an 'organism' to be concerned not in functional terms, but in terms of relations at several levels, according to the different scales of human associations. It follows that the architect's aim was to reconnect the inhabitants with their urban fabric, thus assuming the identity parameter as one of the main reference criteria.

32 See Francis Strauven, *Aldo van Eyck*, 346-354; Oscar Newman, *CIAM '59 in Otterlo* (Stuttgart: Karl Krämer Verlag, 1961).



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a constant reference in the development of his theoretical and design activity. The essay opened with the recognition of a 'new consciousness' that had arisen thanks to the contribution of scientists and artists in the beginning of the century, who contributed to the definition of a non-Euclidean vision of reality. This consideration was associated with another one having an anthropological nature, which, evoking the then-contemporary structuralist research addressed by Claude Lévi-Strauss in his *Anthropologie structurale* (1958), was based on the recognition of certain permanent characteristics of the human being, which remain unchanged over time and should be considered in the design phase. In order to satisfy this need, architecture requires the use of certain fundamental values, having an archetypal essence, able to respond to the permanence of certain human constants. Thus van Eyck graphically translated the afore-mentioned theory through a panel entitled "Otterlo Circles" [Fig. 6] – later republished in a second version – with a representation of two circles enclosing, respectively, the space-formal realm of architecture and the social realm of human interrelationships³³. Van Eyck posited a connection between these two worlds in terms of mutual interaction. Thus, building on the line of thought about the concept of 'doorstep', the new configurative principles had to be oriented towards overcoming the polarity that permeated both the social and architectural spheres, implementing the practice of 'in-between', that is, the process of interaction of dual

33 The first was identified in the set of the three main strands represented, emblematically, through three paradigmatic buildings: the classical one ('immutability and rest') depicted through the Temple of Nike in Athens (first version) and the plan of the Parthenon (second version); the one of the spontaneous constructions ('vernacular of the heart') illustrated through a group of houses in the village of Aoulef in Algerian Sahara (first version) and a plan of Pueblo Arroyo in New Mexico (second version); the modern one ('change and movement'), in both versions embodied by one of Theo van Doesburg's Contra-costructions. The second circle contained, in the first version, three images depicting sculptures from the Bronze Age; in the second, van Eyck replaced the three images with a photograph of a group of Kayapo Indians from the Orinoco basin (Venezuela) dancing in groups.

Fig. 6
"Otterlo Circles", first version (1959).
From: Vincent Ligtelijn and Francis Strauven, ed. Aldo Van Eyck Writings. Collected Articles and Other Writings 1947-1998. Amsterdam: Sun Publishers, 2008.

Vers une „casbah” organisée...



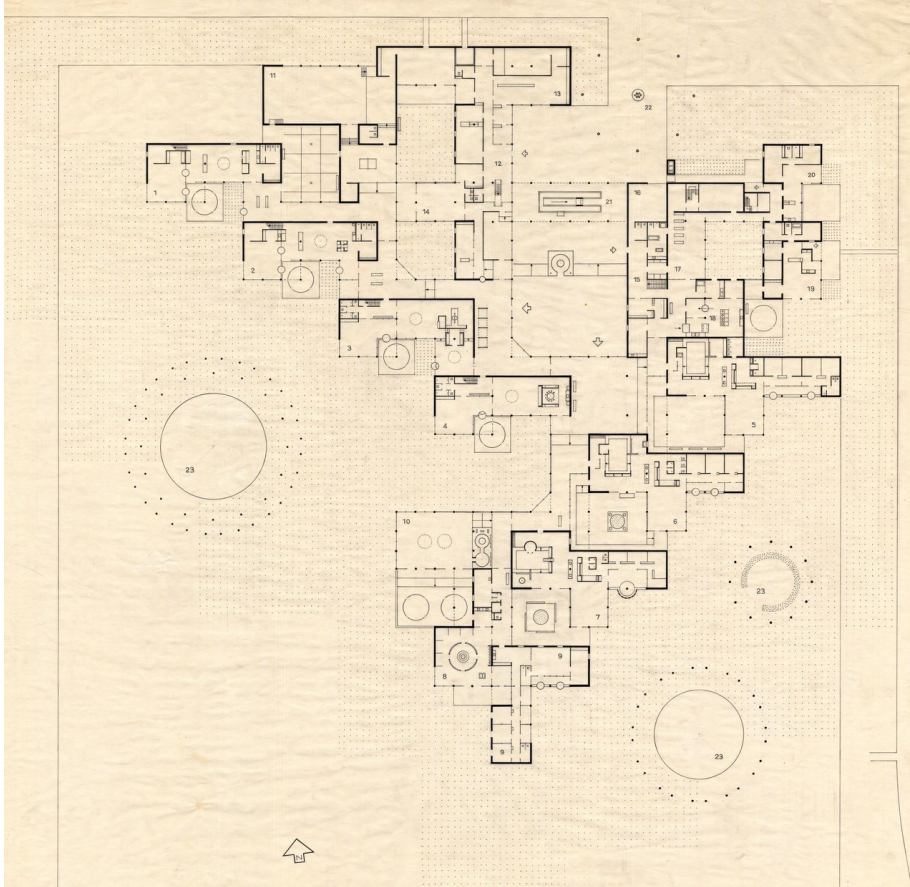
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phenomena through the space-formal composition. At the date of the Congress, thanks to his personal evolution as an architect, the three strands highlighted by the Dutch architect were already present in De Carlo's imagination, with the fundamental difference that for the latter the contemplation of the three instances was not aimed at the search for an archetypal condition of architecture.

On the basis of this theory, van Eyck presented four projects that aimed to exemplify the above arguments: the Nagele School (designed 1954-55, built 1955-56), the Congress building for Jerusalem (1958), the Piet Blom's study project "the cities will be inhabited like villages" (1958) and the Children's Home of Amsterdam (designed 1955-57, built 1958-60). The presentation of the projects, also illustrated in a single panel, was marked by two slogans that summarized the theoretical background at the base of the project thinking: '*la plus grande réalité du seuil*' and '*vers une casbah organisée*', the latter also reported in the above-mentioned *Forum* No. 7 [Fig. 7]. This definition is a "poetic image" that expresses a way of organizing space based on a horizontal development with a certain degree of complexity due to the relationship between the underlying order matrix and the variations obtained through modular repetitions. In this model, primacy is assigned to the links between the parts and the open spaces to be generated.

Fig. 7

Forum No. 7/1959, p. 248.
From: Francis Strauven. Aldo van Eyck. The Shape of Relativity. Amsterdam: Architectura & Natura, 1998.



8 |

The works presented by van Eyck illustrated a progression in design towards the affirmation of a precise 'configurative discipline' embodied by the Orphanage. The Nagele School showed a compositive approach similar to the one De Carlo adopted in his home in Baveno and in the "Astragalo" housing project in Matera in 1954, although it was characterized by a more dynamic trend. Here the Dutch architect used the same distribution scheme used for the entire composition of the Nagele neighbourhood, presented at Ciam 10. The modules used for the school complex revolve around a main square in a centrifugal fashion, just as the individual classrooms revolve around smaller centers, defining changes in scale that work in a similar way. This project, from a compositional point of view, was still confined to the experimentation of the De 8 and Opbouw groups, as was the Congress building for Jerusalem, also based on the 'centrifugal geometric pattern'. Both projects, despite their anticipatory character, did not yet possess that free development form, but they were rather structured geometrically in an open form typical of the Orphanage. Piet Blom's project³⁴ focuses on centrifugal composition, which to van Eyck's young pupil was very attracted. The appreciation for Blom's project was such as to earn the publication in *Forum* No. 7. Van Eyck defined it as an actualization of Team 10's ideas and as an evocative combination of harmony in motion, of dual phenomena such as internal-external, individual-collective, etc., which embodied the properties of a 'casbah organisée'.

The Children's Home or Orphanage [Fig. 8], although not an urban-scale project, was characterized by a compositional process capable of adapting even

34 He was one of van Eyck's best disciples, for whom he had great esteem and admiration. The two met during their years of teaching at the Academy of Architecture in Amsterdam (1954-59, coinciding with the design and construction of the Orphanage).

Fig. 8

Aldo van Eyck, Children's Home, ground floor plan. From: Francis Strauven. Aldo van Eyck. *The Shape of Relativity*. Amsterdam: Architectura & Natura, 1998.

to a larger scale, thus succeeding in exemplifying a general theory, an idea of the city at a small scale. Moreover, as Strauven explains, the Orphanage represented the first experimentation with fusion of the three traditions of 'Otterlo Circles' in a new architectural configuration. The whole compositional reasoning was based on dissatisfaction with the old methods based on a simple additive procedure "unable to handle plurality". To it, van Eyck contrasted the method of 'labyrinthine clarity' or 'casbah organisée', which contained both the principle of interaction of dual phenomena and that of 'harmony in motion', concerning the control of multiplicity and the need to prepare a main grid (order) to be transgressed through variations that allow transformation over time ('growth and change') without altering the recognition of the principle of basic organisation. Starting from this basic module, the Orphanage was composed of a series of 'units' which, while respecting the basic orthogonal pattern, were articulated in a very complex internal sequence, in which, however, it is possible to identify the two main diagonals ('roads') along which the eight sections for children of different ages unfold. The rooms are all covered by domes of the same size, while the common areas are identified by larger domes. The entrance of the building is characterized by a real 'in-between space', crossed by a interpenetration of open and closed spaces that articulate the service and administrative areas, including the reception. The relationship between common and closed open spaces, some of which are more reserved, is what characterizes the entire complex and makes visible the compliance with the 'doorstep', in its ability to mediate between the architectural polarities. In other words, here the desired overcoming of the peremptory dualism between inside and outside is realized, generating a flexible and open structure that does not renounce to show an order of implantation. As Herman Hertzberger says:

Qui per la prima volta troviamo una corrispondenza reale tra i principi enunciati e l'architettura costruita. [...] Nagele conteneva già i germi dell'Orfanotrofio, ma in quest'ultimo la pianta è diventata una vera 'comunità'. L'edificio, con le sue 'strade', le 'piazze' e i corpi edilizi indipendenti, è come una piccola città autonoma. [...] Forse, questa identificazione con una 'piccola città' è già in sé l'atto più creativo e un'innovazione importantissima. Una volta stabilita questa 'connessione', si libera nel progetto tutta una serie di associazioni che danno una nuova dimensione alla qualità degli spazi comuni, 'pubblici'.³⁵

For this reason, van Eyck's work was a sort of manifesto of the Dutch contribution to 'Team 10 thinking'. The need for the limit, albeit articulated as an open form, which characterizes van Eyck's architectural conception, is underlined by Pierluigi Nicolin:

³⁵ "Here for the first time we find a real correspondence between the stated principles and the built architecture. [...] Nagele already contained the germs of the Orphanage, but in the latter the plant has become a true 'community'. The building, with its 'streets', 'squares' and independent buildings, is like a small autonomous city. [...] Perhaps, this identification with a 'small town' is already in itself the most creative act and a very important innovation. Once this 'connection' is established, a whole series of associations are released in the project, giving a new dimension to the quality of the common, 'public' spaces [Translated by the Author]." Herman Hertzberger, "Aldo van Eyck," 82.

"In questo modo la indefinita accrescibilità, mobilità, flessibilità interna al principio del mat building si chiude in un sistema di relazioni finite e concrete a differenza di quanto avviene nei paralleli tentativi di Candilis, Josic, Woods (Università di Francoforte e di Berlino).³⁶"

The influence of the Orphanage was felt immediately after the conclusion of the Ciam, when Team 10 began its autonomous journey, starting from the meeting in Bagnols-sur-Cèze in 1960, where De Carlo immediately established himself among the most active participants. The following year, a more marked design configuration, aimed at accentuating the collective space, began to emerge in De Carlo's work, starting with the projects he developed for the Colonia di Riccione, the Holiday house in Bordighera and the Colonia di Classe (unbuilt). All of the three projects showed a clear additive design process that defines a progression towards the open form, in which "i progetti di De Carlo tendono ad assomigliare sempre meno a degli edifici e sempre più a dei brani urbani."³⁷

Moreover, already Lamberto Rossi in 1988 defined the Colonia di Riccione [Fig. 9] as "uno dei primi edifici di De Carlo 'in forma di città' ovvero concepiti come un complesso sistema di relazioni tra attività, strutture e forme."³⁸ The Holiday house in Bordighera showed a 'centrifugal' pattern of cells around open spaces, while the unbuilt Colonia di Classe, apart from the formal similarities, embodied all those principles defined by van Eyck in *Orientation*. Of course, these projects do not demonstrate an unprecedented design approach on the part of De Carlo, but are a clear manifestation of the assimilation of some of the principles followed in those years internationally, especially by the members of Team 10 and Aldo van Eyck in particular, who gave a more precise direction to what De Carlo had already experienced from his projects for INA-casa. These projects heralded an expansion of his linguistic vocabulary that would only become more mature after the Otterlo meeting.

At Team 10 meeting in Royaumont in 1962, van Eyck presented the diagram

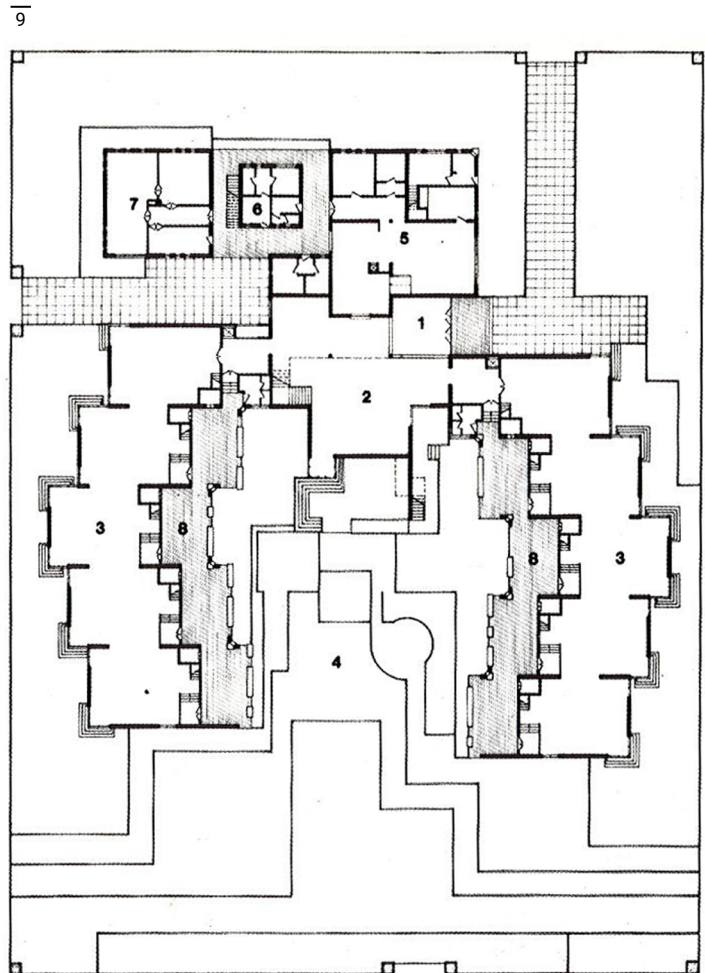


Fig. 9
Giancarlo De Carlo, Colonia di Riccione, ground floor plan. From: Lamberto Rossi. Giancarlo De Carlo. Architettura. Milan: Arnoldo Mondadori Editore, 1988.

36 "In this way the indefinite increase, mobility, flexibility within the principle of mat building closes in a system of finite and concrete relationships unlike what happens in the parallel attempts of Candilis, Josic, Woods (University of Frankfurt and Berlin) [Translated by the Author]." Pierluigi Nicolini, "Aldo van Eyck. La trama e il labirinto," *Lotus International* 11 (1976): 105.

37 "De Carlo's projects tend to look less and less like buildings and more and more like urban pieces [Translated by the Author]." Federico Bilò, *Tessiture dello spazio. Tre progetti di Giancarlo De Carlo del 1961*, 97.

38 "One of De Carlo's first buildings 'in the form of a city' or conceived as a complex system of relations between activities, structures and forms [Translated by the Author]." Lamberto Rossi, *Giancarlo De Carlo*, 58.

containing the analogy “the leaf is the tree, the tree is the leaf; the house is the city, the city is the house”, to correct what he called the false organic city-tree analogy³⁹. This was an implicit criticism of the project presented by Candilis for Toulouse-le-Mirail, based on a tree structure. On that occasion, the Dutch architect presented Blom’s Noah’s Ark project to exemplify the analogy in his diagram. This project was criticized during the meeting, especially by the Smithsons, thus generating a rift that saw two opposing ways of understanding the question of ‘large numbers’. In particular, Peter Smithson argued that the city is not a big house and that they were trying to design it in such a way as to allow free development without compromising the functioning of the other elements. Van Eyck’s response was clearly expressed in the same year by the pages of *Forum* 16, No. 3, in which the architect published his famous “Steps Toward a Configurative Discipline”. Here he summed up his ‘configurative theory’ through key words such as ‘reciprocity’, ‘aesthetics of number’, ‘identification devices’, but above all by advocating the need to foresee flexible but controllable urban systems, as emerges from a passage by metabolists Fumihiko Maki and Masato Ohtaka referred to in his essay: “The ideal is not a system, on the other hand, in which the physical structure of the city is at the mercy of unpredictable change. The ideal is a kind of master form which can move into ever new states of equilibrium and yet maintain visual consistency and a sense of continuing order in the long run.”⁴⁰

In 1965 at the Team 10 meeting in Berlin, De Carlo presented the Collegio del Colle (1962-66) built as part of the university projects in Urbino, a city that the Italian architect proposed as the venue for the next meeting in 1966. In the same year, even before visiting the complex, van Eyck reviewed this project in a paper published in *Zodiac*, highlighting its dual nature:

What makes this building so house-and city-like (hence successful) besides the consistent use of the same construction as vocabulary materials and colour throughout is also its major advice. It is at once both places; way of access and communication; both open and closed; both inside and outside; both large and small and has, above all, individual and collective meaning. It belongs to the ‘building’ as much as it belongs to the ‘site’, in fact through it the building is the site, the site the building.⁴¹

For the first time in a project by De Carlo he saw a way of understanding the project in terms of ‘casbah’ – a consideration also made with reference to the Villaggio Matteotti in Terni (1969-75)⁴² – thus recovering, in the eyes of the Dutch architect, what Matera had not been able to arouse: “He has just completed a

39 Dirk van den Heuvel, “Royaumont 1962. The issue of urban infrastructure,” in *Team 10 1953-81*, 100-101. See also Jacob B. Bakema, “Team 10 at Abbaye Royaumont,” in *Team 10 Meetings, 1953-84*, ed. Alison Smithson (New York: Rizzoli, 1991).

40 Aldo van Eyck, “Steps Toward a Configurative Discipline,” (1962), in *Aldo Van Eyck Writings*, 337. This essay is also published in *Architecture Culture 1943-1968. A Documentary Anthology*, ed. Joan Ockman, (New York: Rizzoli, 1993), 347-360. The Italian translation is in *Le parole dell’architettura. Un’antologia di testi teorici e critici: 1945-2000*, ed. Marco Biraghi and Giovanni Damiani (Turin: Einaudi, 2009), 75-99.

41 Aldo van Eyck, “University College in Urbino by Giancarlo De Carlo,” *Zodiac* 16 (1966): 171.

42 See Clelia Tuscano, “Interview with Aldo van Eyck,” 328-331.

building which [...] demonstrates magnificently that old images, whether Urbino or Matera, can still have real contemporary meaning if architects with insight and integrity respond to their message and interpret them in built form for the benefit of the people of today.⁴³

Two years after the Team 10 meeting in Urbino, the theme of the great number found an important opportunity to spread in the 14th edition of the Triennale di Milano curated by Giancarlo De Carlo and focused on the need to take into account the mass phenomena and the transformation induced by them in architectural and urban design. In order to control these transformations, as De Carlo said, the development of a scientific basis for the architecture of the great number became necessary:

"Il controllo delle grandi trasformazioni dell'habitat umano e la produzione pressoché illimitata di oggetti che si collocano nell'ambiente fisico, implica l'adozione di strumenti di analisi e di intervento progettuale precisi, fondati su tecniche complesse e rigorose."⁴⁴

A rigour similar to that shown by van Eyck in the pages of his "Steps Toward a Configurative Discipline", albeit from a perspective that favoured the compositional dimension of the project, mindful of its past in avant-garde art. The section that the Dutch architect designed for the same Triennale, entitled "The Small Scale for the Large", focused on the contradiction between the overabundance of technological means and the inability of our society to address the issue of large numbers in a balanced way, especially with regard to the environment, both natural and built. As well known, the occupation of the rooms of the Triennale by the demonstrators generated a stasis in the exhibition that reopened to the public almost a month after its inauguration on May 30, 1968. This event had a negative impact on De Carlo who decided to resign from the executive council and suspend his collaboration with the Triennale until 1995. This condition of distrust was amplified in the same years by the hostility he suffered in the academic sphere because of his position against the specialization of disciplinary knowledge, conducted inside and outside the university environment.

The end of the Sixties represented a downward phase also for the history of Team 10, as demonstrated by the results of the Urbino Meeting and the consequent need to re-evaluate the group's intentions at the Paris Meeting the following year, in 1967, which was attended by a small group of representatives. This situation continued also during the Seventies, until one of the last official meetings, that of Spoleto in 1976 [Fig. 10], the second organized by De Carlo ten years after the first. Here the various themes followed one another in a very informal discussion, partly resulting from a visit to De Carlo's latest creation in

43 Aldo van Eyck, "University College," 171.

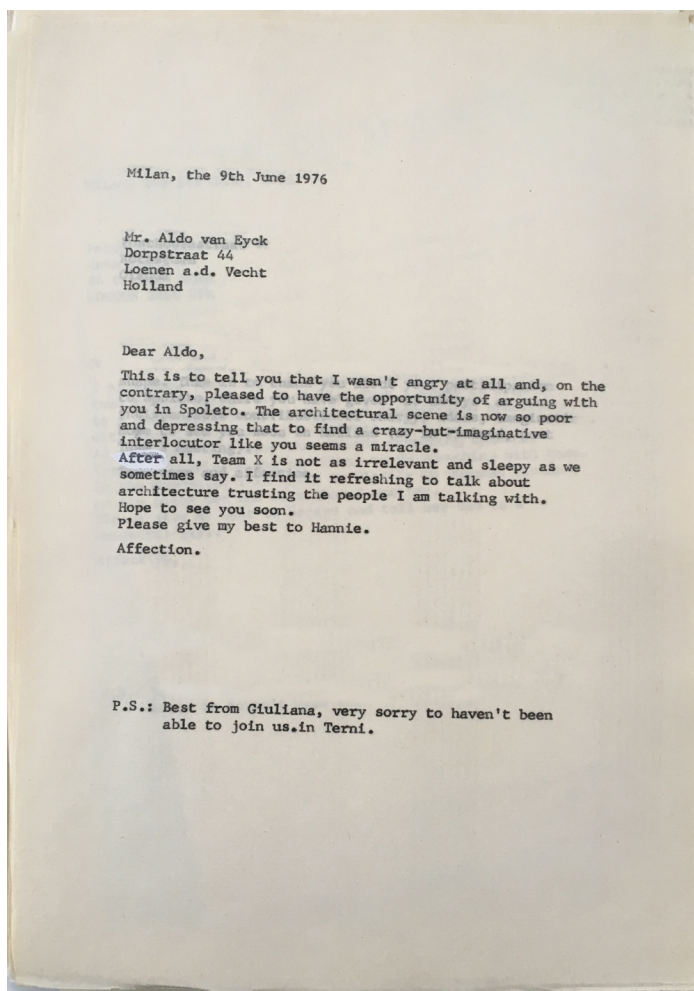
44 "The control of the great transformations of the human habitat and the almost unlimited production of objects placed in the physical environment, implies the adoption of precise analysis and design intervention tools, based on complex and rigorous techniques [Translated by the Author]." Giancarlo De Carlo, *La piramide rovesciata* (Bari: De Donato, 1968), 42.

Terni. It is interesting to note the dissatisfaction with the contemporary architectural landscape and a certain glimmer of hope with Team 10 that emerges from a letter sent by the Italian architect to van Eyck three days after the end of the meeting: "The architectural scene is now so poor and depressing that to find a crazy-but-imaginative interlocutor like you seems a miracle. After all, Team 10 is not as irrelevant and sleepy as we sometimes say."⁴⁵

The IACP housing project designed by De Carlo in Mazzorbo between 1979 and 1985 can be seen as the final point of this evolution as this is one of the last projects in which van Eyck's lesson is visible, in particular with regard to the general organization of the 36 lodgings built. It is expressed through an additive process based on the 'non-identical modular repetition' of housing cells of 45, 70 and 95 square meters aggregated in building units to form small open courtyards in which collective life takes place. The geometric scheme responds to the criteria of typological differentiation and functional integration – on the ground floors there were small rooms for commercial use. The use of some spatial elements from the local tradition made it possible to fine-tune the above organization on the model of the historical fabric of Burano: the spatial *continuum* existing between the main street (*corso principale*), the *sotoportego* and the *campo* constitutes the main 'identity device' of the housing project – a definition used by van Eyck himself. In Mazzorbo, as in Urbino, the use of innovative instances and elements aimed at reinterpreting contextual factors generated an unprecedented complexity which dignified 'contradiction' as a positive factor of the project.

Conclusions

Through the leitmotif of the 'great number', which accompanies the entire history of Team 10, it is possible to find in the work of the two architects examined a similar recourse to the additive process through the iteration of modular units and a consequent evolution towards the 'open form', albeit with different semantic declinations and linguistic accents. As evoked in the title of this essay, their architectural conception, which inevitably invades the more general ideological sphere, oscillates between a need for order or 'measure' and another capable of



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Fig. 10

Letter sent by Giancarlo De Carlo to Aldo Van Eyck, Milan, 9 June 1976, single sheet. From: Università Iuav di Venezia-Archivio Progetti, fondo Giancarlo De Carlo.

⁴⁵ Letter sent by Giancarlo De Carlo to Aldo van Eyck, Milan, 9 June 1976, single sheet. Università Iuav di Venezia-Archivio Progetti, fondo Giancarlo De Carlo, seg. De Carlo-atti/044, fascicolo: Team X (Nov. 1963 - Dec. 1981).

contradicting the former through a reactive force – the term ‘contradiction’ often recurs in De Carlo’s writings and, like van Eyck’s ‘chaos’, is always permeated with a positive meaning. Therefore, the binomial ‘order-contradiction’, or even ‘order-freedom’ – more evocative of the anarchic roots of De Carlo’s thought – expresses a common need for contemplation of this double phenomenon⁴⁶. However, this reasoning contains a gap between the two, consisting in the possibility of controlling this disorder. For the Dutch architect, the principle of order corresponds to the modular frame at the base of the project, while for De Carlo it is expressed mainly in the concept of ‘modesty’ and, in particular, in its etymological meaning of *modus*, i.e. ‘limit and measure’⁴⁷. For van Eyck, the variation is represented by the transgression of the ordering system, while for De Carlo it is embodied by a ‘constructive disorder’ identified with ‘participation’, transferring the reasoning from the design plan to the social one:

*L'architettura è per definizione un'attività che 'mette ordine' [...]. Forse anche Vitruvio quando andava a visitare una città si stancava di ammirare le grandi avenues dell'ordine e perciò scantonava nei vicoli del disordine, dove brulicano le attività, si intrecciano i sistemi organizzativi e fioriscono le forme. La verità è che nell'ordine c'è la noia frustrante dell'imposizione mentre nel disordine c'è la fantasia esaltante della partecipazione.*⁴⁸

Another passage by the same author reads:

*Bisogna precisare che per disordine non si intende l'accumulazione di una disfunzione sistematica, ma al contrario l'espressione di una funzionalità di tipo superiore capace di includere e rendere manifesto il gioco complesso di tutte le variabili coinvolte in un evento spaziale. [...] Sappiamo anche che una città, un quartiere o una strada, e perfino un edificio, ci interessano proprio per tutto quello che riesce a sfuggire ai controlli di queste regole, per le espressioni non ammesse che si insinuano tra le smagliature dell'ordine e si rivelano con tutta la ricchezza di stimoli che è propria delle contraddizioni.*⁴⁹

On the other hand, it is in the acceptance of the contradiction as a positive phenomenon that De Carlo absorbs the teaching from Team 10:

46 As van Eyck says: "What is of the right measure is at the same time big and small, plenty and few, near and far, simple and complex, open and closed, and will always be at the same time part and all, capable of embracing unity and diversity together [Translated by the Author]". Aldo van Eyck, "Prassi verso una disciplina configurativa," 76.

47 See Giancarlo De Carlo, "Della modestia in architettura," *Spazio e Società* 76 (1996).

48 "Architecture is by definition an activity that 'puts order' [...]. Perhaps Vitruvius, too, when he went to visit a city, got tired of admiring the great *avenues* of the order and so he would go into the alleys of disorder, where activities swarmed, organizational systems intertwined and forms flourished. The truth is that in order there is the frustrating boredom of imposition while in disorder there is the exhilarating fantasy of participation [Translated by the Author]." Giancarlo De Carlo, "L'architettura della partecipazione," in *L'architettura degli anni Settanta*, ed. Peter Blake, Giancarlo De Carlo and James Maude Richards (Milan: Il Saggiatore, 1973), 134-35.

49 "It should be pointed out that disorder does not mean the accumulation of a systematic dysfunction, but on the contrary the expression of a superior type of functionality capable of including and making manifest the complex game of all the variables involved in a spatial event. [...] We also know that a city, a neighborhood or a street, and even a building, are of interest to us precisely because of everything that manages to escape the control of these rules, because of the impermissible expressions that creep among the stretch marks of order and reveal themselves with all the richness of stimuli that is proper to contradictions [Translated by the Author]." Giancarlo De Carlo, "Perché/come costruire edifici scolastici," (1969), in *La piramide rovesciata. Architettura oltre il '68*, ed. Filippo De Pieri (Macerata: Quodlibet, 2018), 113.

“Ecco, se debbo proprio dire cosa ha inciso sul mio sviluppo di architetto, molto più che ai Ciam dovrei riferirmi al Team 10. Anche il Team 10 è solcato di contraddizioni, ma il tessuto che ne risulta le ammette; si può dire perfino che non potrebbe farne a meno.”⁵⁰

50 “Well, if I have to say what has affected my development as an architect, much more than the Ciam, I should refer to Team 10. Team 10 is also full of contradictions, but the resulting fabric admits them; one can even say that it could not do without them [Translated by the Author].” Giancarlo De Carlo, “Conversazione su Urbino con Pierluigi Nicolini,” in *Gli spiriti dell'architettura*, ed. Livio Sichirollo, II Edition (Rome: Editori Riuniti, 1999), 281.

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