

# The Concept of “Habitat”: the Cellular Design Reformulation of the Post-War Modern Movement

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**Abstract:** After six years of conflict, World War II ended in the aftermath of the atomic bomb. It was the end of the ideology of progress. Struck by an internal crisis, the Modern Movement tried to oversee the reconstruction, aware that this could no longer be based on the principles of '33. It was as a result of this quest that the *Charte de l'Habitat* arose: it defined the response to a holistic design approach towards architecture and the environment, and a theoretical and practical reformulation of man's attitude towards nature. *Habitat* not only referred to human shelter but was the cell of a socially organized body. It came about when the content (man and needs) and the container (dwelling and environment) were organically joined to their social and productive territory. The concept embraced new dimensions of time and space and resulted in the post-war desire for sustainable development

**Keywords:** habitat, territorial transformation, design process, holistic approach, sustainable development.

## I. The Modern Movement after World War II

After almost six years of uninterrupted conflict, anticipated by a crippling financial crisis, World War II came to an end under the impact and devastation of the atomic bomb. This conflict of catastrophic dimensions highlighted an increased interdependence between regions and states and underlined the emerging problem of the protection of humanity and human rights. Political order was turned upside down, productive structures were shaken and the lives of survivors were deeply scarred. Pain and reconstruction went hand in hand with a strong, widespread desire for stability.

At the end of the war, architects of the International Congresses of Modern Architecture (the so called CIAM) were involved in important reconstruction work. Acting as an echo of pre-war avant-garde, they focused on the attempt of transferring international rationalism methods and principles on a larger scale, assuming the role of institutions in charge of the reconstruction, and they criticized the evident contrast between rapid economic growth and the lack of a shared attitude towards reconstruction.

Looking for effective ways to try to solve the situation, the Modern Movement expanded its horizons. Young people from all over the world, not only Europe, began taking part in the CIAM. “[...] Congresses stopped being exclusively a Western and Central European organization as many of its old and new members were scattered in different continents” (Tyrwhitt *et al* 1952). This diffusion encouraged the CIAM to widen its circle of duties. During the pre-war years Congresses had dealt with European themes, concerning themselves with countries with a high standard of living. They had ignored the fact that about four fifths of the world's population had issues of a different nature to be solved. After the war it became clear that reconstruction could not be based on pre-war principles “the four basic functions of urbanism set by the CIAM in the *Charte d'Athènes* in 1933, their balance and their ordered relationships. They must also be rebuilt” (Giedion, 1961).

A new focus on the concept of habitat, References: to biological sciences, “otherness” and context were all elements of the general intellectual post-war movement that helped to fill the vacuum caused by the conflict. With a historical approach and the use of newly declassified documents, this article will shed light on the post-war spread of the term habitat. The objective is to document the post-war stages of the CIAM's interest in the new concept and to record its lead-

ing role in the theoretical construction of a holistic and sustainable reformulation of modern principles in architecture and landscape design. “Since the war we have become more and more aware; [...] a profounder approach will be imperative” (Van Eyck 1954).

## 2. The problem of listening to context

The *Charte de l'Habitat* arose from this search for a holistic approach in the field of architecture. In 1949, at the CIAM meeting in Bergamo (Italy), Le Corbusier put forward a study of the concept of *habitat* and a charter to complement the work that the Congress had signed in Athens in 1933. Le Corbusier did not indicate the charter's content, nor did he define the meaning of the new concept of *habitat* but, despite initial uncertainty, this term remained the centre of debate in Congresses until CIAM X.

In Hoddesdon (England), during CIAM 8 (1951), the issue was not directly addressed but, in an attempt to clarify it partially, Sigfried Giedion aimed at dealing with the concept of *core* (Fig. 1). “The term “core” which was introduced by the MARS group of London in the place of “civic centre” (whose meaning has become too closely restricted to administrative building) may soon come into general use. Since 1300, according to the Oxford English Dictionary, the word “core” has meant “the central innermost part, the heart of anything” and it was defined by the MARS group as “the element which makes a community a community and not merely an aggregate of individuals” (Giedion 1958). There was much controversy in Congress about the “symbolic” meaning of the *core*, i.e. bringing things back to life through modern forms. However, the interest this concept aroused was as cultural as it was experimental. “The danger I see is that words (such as *core* and *Habitat*) could become worn and diverted in the future [...]. Of course up to now we have not clarified the meaning of *Habitat* either. We have to wait until the end of CIAM 9. But now we know clearly what *Core* means”.<sup>1</sup>

At the 1951 meeting, from the term *core* a new interest that would relate to the concept of *habitat*, emerged. It was about the problem of listening to context and seeing a project both as dialogue of territorial strengths and as a historical record of the formation of a specific place. Here, the members of the Board<sup>2</sup> launched an “environment humanization process”, as a result of both human awareness and the course of current events. By doing so, they recognized

a trend that was present in all Western countries: "Our current interest in the *core* is part of this human scale and it is part of man's rights against the tyranny of machinery" (Giedion 1951).



Fig. 1, The Core. Source: Tyrwhitt J et al 1952.

### 3. The cellular design principle

Finally, in 1952 in Sigtuna (Sweden), the Congress confronted the concept of *habitat* in its entirety. During the meeting a debate on the terms *habitation*, *habitat* and *dwelling* was initiated, together with the difference in their meanings in English and French. Meanwhile, the instrumental value that the *Charte de l'Habitat* would take was being discussed within the "Committee of Five": Le Corbusier and Sert assigned to it the value of regulatory support for urban planning and a practical tool for architecture (Bosman, 1992). The Board intended the relationship between the *Charte d'Athènes* and the *Charte de l'Habitat* to be very closely knit. In fact, when reporting about the charter's project, Jaap Bakema says: "The *Charte de l'Habitat* is the logical and direct complement of the *Charte d'Athènes*" (CIAM 1952. Note sur le projet de *Charte de l'Habitat*). However, an essential difference characterised the approach of the two documents: "[...] while the *Charte d'Athènes* is a charter of Urbanism and prepares the framework of human life for generations, even centuries - that is to say it is committed to long term - the *Charte de l'Habitat* interests the cells of the Body organised by Urbanism". Moreover, a forward note, with clear References: to biological and scientific terminology, sets out: "However, these cells are born, live and die. [...] these cells may not be accurate for other places and other generations. Therefore the *Charte de l'Habitat* addresses the precarious, temporary and variable aspect of construction, while the *Charte d'Athènes* considers their permanent and durable appearance".

The *habitat* of Sigtuna was the result of a relational system of cells which are continuously changing. They were designed to last over the time of a single generation and to survive the debate on the space and time isolated artefact. In finishing, the note concludes "The *Habitat* is not a human shelter. It is a cell of a socially organised body. The cell depends on the body of which it is part. By contradiction, the cell without a body loses all meaning in the sense that we understand". This was the first hypothesis of the definition of *habitat*. The concept of its context expanded, it encompassed new temporal (adaptability and transformability of the cell) and spatial (relationship between cells and body) dimensions which led to the idea of a holistic and sustainable transformation of landscape and territory. The *Charte de l'Habitat* revealed itself as being highly conscious of "the other", a concept acquired during

the Second World War, and CIAM's "mission" from this moment on would be "to search for the happiest compromise between basic needs and universal constraints" (CIAM 1952. Note sur le projet de *Charte de l'Habitat*).

### 4. Non-Western cultures and the role of traditional architecture

At the 1952 Congress, French architect Michel Écochard, head of the *Service de l'Urbanisme* in Morocco between 1946 and 1952, produced a report entitled "Housing for the greater number".<sup>3</sup> It provided a detailed reflection on the concept of *habitat*. In particular, Écochard concerned himself with the characteristics of minimum standards within *habitat*. Until that moment city design and planning had only been influenced by urban *habitat*. It was thanks to architects like Écochard that research on design broadened its horizons to the study of rural architecture, spontaneous settlements, traditional houses and even urban slums (Fig. 2). "Where

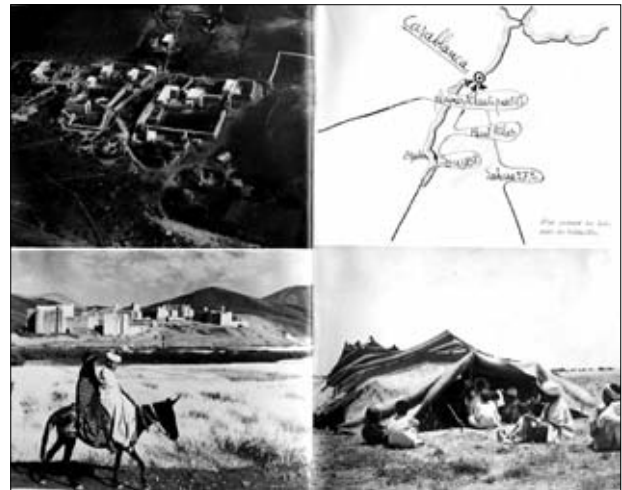


Fig. 2, Images of Arab traditional and nomadic architecture. Source: Écochard M 1955.

do the rules of *habitat* begin? Is it when man is able to live in the *minimum* house? Can we allow douars, slums and compounds to be shelters?" (CIAM 1952. Housing for the greater number).

A turning point in the definition of the concept of *habitat* came about during the Aix-en-Provence CIAM (France, 1953), acknowledged by historians as being one of the most successful CIAMs of all time. CIAM 9 was already renowned as having enriched architecture in countries on the periphery of Western civilization. North Africa, Brazil and the Far East are just some of the places where the Modern Movement had worked after the war. During the '50s, the problem of "technically underdeveloped areas", mainly concerning tropical and some temperate regions of the world (i.e. Canada), had uncontrollably appeared over a short period of time. Only during CIAM 9 were issues tied to the traditional architecture of these regions explicitly mentioned. As a result, modern architecture extended its sphere of activities and area of interest by relating to traditional realities, just as it had done by referring to the great civilizations of the past. "We do not regard primitive civilizations from the point of view of an advanced technology. We realise that often shantytowns contain within themselves vestiges of the last balanced civilization - the last civilization in which man was equipose. We realise that they can teach us forms that can be used to express specific social, territorial, and spiritual conditions" (Giedion 1958). Reflection on local specificities reaffirmed the need the Modern Move-

ment had for obtaining a holistic and ethical attitude towards *habitat*. "The habitat for the greater number poses three problems: quantity, quality and spirit" (CIAM 9, 1953. Comm. n.1). In Commission 6's report of CIAM 9, chaired by Pierre-Andre Emery and Georges Candilis, they write: "The community that took charge of building homes for mankind is still unprepared for this role" (CIAM 9, 1953. Comm. n.6). In order to define the new human *habitat* they will have to study the traditional forms of land ownership, territory design and the right of land occupation linked to the past, seeing as "the present form of land and habitat ownership, and right to occupy and build on land, obstacles the habitat's evolution and transformation first and foremost" (CIAM 9, 1953. Comm. n.6).

## 5. The environmental factor and the human factor

In Aix-en-Provence, the Modern Movement explored the principles that guide the design process of the *habitat*. The central theme in this quest was the relationship between man and nature, that is to say "the human factor" and "the environmental factor".<sup>4</sup> The terms and the issue were addressed by Commission I, chaired by Le Corbusier and Sert, and organised by Bakema. Since Paris (April 1953), the French group had reflected on the importance that the environment had for architecture. "The constructions which man creates to LIVE in are not passive. The "all organised" that they form is the physical environment, the "material container" where he "lives". There is a constant action and reaction between the container and the life which develops" (ASCORAL, 15 April 1953). In the new regionalism of Aix-en-Provence (Giedion 1954), architectural design was forced to express its aesthetics by remaining consistently parallel with the study of the "living climate" of a place. Only by doing so would it have been seen as having the "contemporary spirit" (Giedion 1958) of that particular territory. According to Commission I, architectural forms and construction techniques had to "adapt" to the environment and to the natural and cultural realm of places. "Adaptation of forms and techniques to the environment, defined by a geographic and climatic study. [...] Adaptation of the thought of the architect to the real needs of the greatest number for a spiritual understanding and exchange" (CIAM 9, 1953. Comm. n.1). The *habitat* had to be defined through a study of geography and climate. At the same time, architects had to study people's needs, habits and customs: only through dialogue between "the human factor" and "the environmental factor", considered to be of equal importance, would the necessary way of defining new modern *habitats* emerge. Finally, at the end of CIAM 9, the first collective definition of the concept of *habitat* was laid down in a supplement of the *Architecture d'Aujourd'hui*. The article reads: "Habitat is not only a human shelter. It is a cell of a socially organized body". And, it continues: "When the content (man and his needs) and the container (the dwelling and its prolongation under environmental influence) are organically joined to their social and productive environment, they become Habitat" (Bodiansky et al 1953).

The *Charte de l'Habitat* still appeared as the continuation of the *Charte d'Athènes*. "The Charte of Habitat will therefore deal with the precarious temporary and variable aspect of the building field, while the Athens Charter treats its durable, if not permanent aspects" (Bodiansky, 1953). However, the differences between the profound renewal and the original 1933 document laid the foundations of a new holistic approach to architecture: "[...] the putting into practice of the Charter for Habitat will consist of a series of

researches to bring the most favourable compromises out of a host of contradictory factors" (Bodiansky, 1953).

## 6. The end of the research on habitat

In order to carry out this task a small research group was formed at the end of CIAM 9, composed of Alison and Peter Smithson, Georges Candilis and Shadrach Woods, Jaap Bakema and Aldo van Eyck, Rolf Gutmann, William Howell and John Voelker. The group, called the "young people", was involved in the organisation of the 1956 CIAM X of Dubrovnik (Yugoslavia) and was to become known as the "Team for the Tenth" or "Team Ten". Le Corbusier was considered their spiritual leader and appointed as an *ex officio* member of the group (Fig. 3).

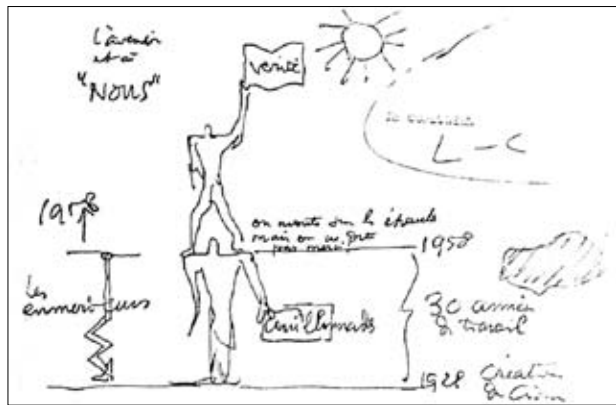


Fig.3, Le Corbusier sketch. The emergence of Team Ten out of CIAM, 1958. Source: Risselada M et al 2005.

Initially, not really interested in becoming an alternative organization, Team Ten pressed for the renewal of Congress and continued in the attempt of specifying the concept of *habitat*. In 1955, documents prepared by the group show: "HABITAT: the function living becomes "the habitat" when it is organically integrated in an environment".<sup>5</sup>

Later that year the definition further specified that: "The HABITAT is the condition of life in the total environment". In the meantime the word "human" had appeared next to the word *habitat* in the Candilis and Le Corbusier versions.

Despite their efforts in discovering a new post-war approach towards architecture and landscape transformation, a general feeling of unease and dissatisfaction grew among the young architects responsible for inheriting the CIAM. Team Ten's goals grew very distant from those of the old Board, a distance which soon became unsustainable. "If we are to create a Charte de l'Habitat, we must redefine the aims of urbanism" (Bakema et al, 1954). These young people came to breaking point in the late '50s when CIAM's glorious past manifestations of cultural generosity and solidarity were weakened and compromised by latest events. The young people had become intolerant about not being able to participate in any decision making, and finally in 1959, Team Ten brought about the dissolution of the Congress.

As we already know, Team Ten never gave birth to a real architectural movement. With the end of CIAM, their research on References: to environmental and social realities and distant or rural civilizations had only found expression in isolated attempts. Even though the study of habitat and cellular design principles, capable of engaging the sustainable development of cities and territories con-

tinued, the lack of a holistic attitude towards landscape, so fundamental in the research of habitat, would result in its unsustainability. It would be the beginning of a period of upheaval and great unrest in the discipline of architecture.

## 7. In Retrospect

All of the events discussed in this article – the use of new terms such as *core* and *habitat*, the new role of traditional and rural architecture, and the search for a cellular design process – were led by architects who were supporters of the idea that a reformulation of post-war modern principles in architecture was necessary. These leaders, along with their colleagues, worked hard to implement and develop the concept of *habitat*. The various stages demonstrate how the meaning, character and scope of the term *habitat* have been shaped, not only by man's practical needs after World War II, but also by the role of a theoretical reflection that has affected each event. Moreover, the source of the term, linked to the numerous fields of study (biology, sociology, etc.), together with the choice of meaning given to it, shapes different conceptions of what architecture should encompass and how it should be undertaken. But what of the future? Nowadays, architectural concepts such as environment, landscape, place and territory are once more a topic of discussion and consideration in the ideology of sustainable development. Daily in an increasingly globalised and virtual world, the European community and its institutions work to define the terms capable of describing the essential components of people's surroundings, the different expressions of the diversity of their shared cultural and natural heritage, and the foundation of their identity (Council of Europe, European Landscape Convention, 2000). As such, discussions become more elaborated and concrete; we need to look back on episodes like the one of the term *habitat*, and others of the post-war period. Most importantly, we need to recognize and understand the influence of other disciplines on the Modern Movement and the different perspectives adopted to solve problems connected to changing social and physical conditions. A definition of sustainability, and landscape, that does not take these realities into consideration will produce an unreal implementation of the terms and concepts that could encourage sustainable development and design. It is a good idea, then, that we leave the door open to such a discussion.

### Notes:

<sup>1</sup> Thought expressed by J Tyrwhitt in a letter sent to JL Sert (December 2, 1952) and partially published in Bosman 1992.

<sup>2</sup> The joint participation of Le Corbusier, Walter Gropius and Sigfried Giedion in the CIAM personified the "masters" of Modern Architecture. Within the CIAM, and together with José Luis Sert (Chairman) and Jacqueline Tyrwhitt (Secretary of the Council), they formed the "Committee of Five" or the "Board".

<sup>3</sup> The document was addressed to the United Nations and the Economic European Commission. After World War II many European countries still had colonial powers, together with the United States.

<sup>4</sup> In the original French language "le facteur humain" and "le milieu naturel".

<sup>5</sup> The documents cited in this paragraph are preserved in the Bakema Archive (NAi) in Rotterdam (The Netherlands). They have never been published.

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