

Towards a Critical Urbanism

Evaluation and revision of the Open Society concept across Western Europe: the Netherlands and Spain.

Sanz Oliver, Juan

EMU – European Post-master in Urbanism Faculty of Architecture and Built environment, TU Delft.

Supervisors:

Dr.ir. Gregory Bracken, MPhil
Department of Spatial Planning. Strategy
Faculty of Architecture and Built Environment, TU Delft.

Dr. Víctor Muñoz Sanz
Department of Urban Design
Faculty of Architecture and Built Environment, TU Delft.

Prof. Dr. Joaquín Sabaté Bel Department of Urbanism and Regional Planning Universidad Politécnica de Cataluña

Examiner:

Ir. Cecile Calis
Department of Theory & Territories
Faculty of Architecture and Built Environment, TU Delft.







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"Love will save us all" F. Dostojevski

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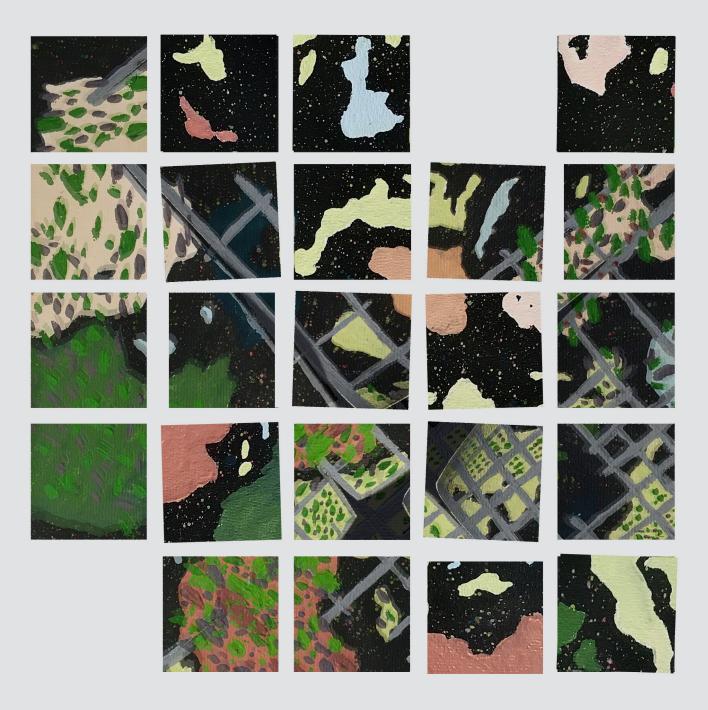


FIG. 1.1 Result of the paintings experiment 4P Project (2019–2021), develop during a long span of time and superposition toughts and actions (phisically and digitally), to articulate the narrative and interest of my reserach project Source: Made by Author

Abstract

Currently, there is a growing gap between theory and practice in urban and architecture fields, that requires dialogue on multiple fronts, scales, and new perspectives. Bridging this gap and achieving a successful transition to an new era. In which theory and practice must work together cohesively creating new methods, models, new points of interest, new forms of professional practice and a new vision.

The concept of Open Society is chosen due to the similarities of the situation between today and then (1960s), such as: housing shortage, polarization of discourse and reduction of plurality, increase in social inequality and large global migrations. For this reason, it was decided to study this concept and its projects as the starting point and symbolic break of this long investigation of the modernist project and its attempt to bridge theory and practice.

The concept of Open Society appeared in the field of urbanism between the 50-60s, the Welfare State, as an attempt to improve living conditions in the city so that society would prosper. These good intentions did not translate into many success stories and the consequences of these operations continue to cause problems today, as can be seen from the current multiple crises (social, economic, environmental, etc.).

Today there are new approaches to the built environment, which allow or offer us new possibilities to reinterpret the concept of Open Society, something of great importance still in contemporary urban discourse. For this reason, this study proposes to carry out a double investigation on the concept of Open Society (both empirical and conceptual) that will provide knowledge about this concept in two Western European countries. This will help to build a network of knowledge around topics of interest in urban matters.

This research aims to investigate and analyze the discursive and projective validity of the concept of Open Society today, the relation between concepts-realities (places), and a critical methodology (open framework) that engages between theory and practice in a continuous dialogue as follows:

- Critically review the concept in the theoretical framework and contemporary global policy frameworks (new urban agenda, theoretical critiques, technical code, etc.).
- Empirically review two case studies that illustrate the implementation of this concept, the phenomena and patterns that have arisen in the friction between the place, the ideals (concept) and the resistance generated by the users.

This research uses a mixed methods approach to examine these two case studies and draw conclusions, and also reflect on the principles and possible unlocking mechanisms. In this way, we generate a discursive break towards a new vision of this concept, which advocates a diverse, inclusive, fair and cohesive ecological societies.

Keywords: Open Society, eudaimonia, Theory-Practice, Critical method, 't Hool, Montbau

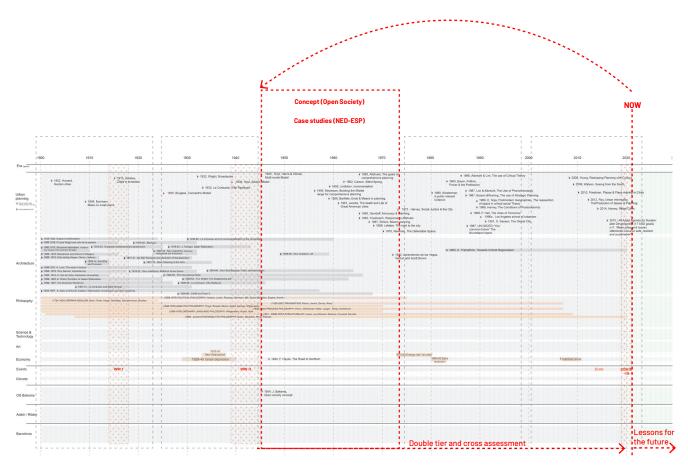


FIG. 1.2 Explorative timeline of the last century where interconnections between discliplines can be traced, especially oriented to Urban and Architecture theory. Source: Developed by Author

Introduction:

During the last half century the field of urban planning has evolved rapidly due to which it is in constant crisis. The constant rupture of the theoretical discourse and the various types of current emerging practices generates a gap between theory and practice, which needs to be addressed.

As Peter Hall has well described in his book Cities of Tomorrow (1993), the gap between Academy and Professional Practice is growing and seems to be a trend that is not cyclical.

Until the middle of the 20th century, the academy had been a technical education taught in universities and polytechnics that provided knowledge, skills and technical tools to solve the problems that practice encountered. For example the Town Planning Institute in London with Adshead and Abercrombie that had its echoes in the United States with the American Institute of Planners founded by Thomas Adams, a collaborator of Abercrombie in England. Urbanism began to be legitimized as urban planning and in 1955 in the utopian era had already fully legitimized and become the science of land use planning.

Theoretical models are taught in schools that do not fit the realities faced by municipal planners and professionals. In this period that part of an ideal city concept was static and stable (slow growth), which would find future complications entering the era of the industrial expansion of the fifties and the baby boom. Due to the long-term consumer needs of goods, houses, cars, etc.

Between the sixties and seventies with the introduction of new technologies, urban planning became a more scientific discipline that studied big information data and specialized intraffic flows in relation to services and uses, land use and transportation planning. of metropolitan and regional areas. These digital tools allowed the urban planner to develop guidance and control systems based on the cyber science of Norbert Wiener. This affected the role and skills that the urban planner developed, the plans were no longer fixed but thanks to the computer systems the emphasis was on the process, continuous revision and constant adaptation and decision-making (Faludi, 1973; Webber 1968). he was in two different situations in practice, as a social scientist and as a technician. And many of the supporters of open systems admitted that systemic analysis had a secondary role and that the urban planner ended up using his own criteria and intuition (Altshuler, 1965)

In the late 1960s, these planning systems received critical acclaim from both the right and the left. (Hall, 1993)

Several theoretical and empirical studies of the philosophical right pointed out that the decision-making process in the United States could be described as "disjointed incrementalism." All planning processes based on a cold and rational method did not fit with reality (game theory), homos economicus, economic theory based on man making decisions for his own benefit. The free market theories of Adam Smith show certain characteristics of the human being but do not describe the reality of

how they make decisions, through judgments as described by the psychologist and novice economics prize Daniel Kaheman in his book "Think Fast and Slow". Making democratic processes much more complex than the simple schemes that arose in urban theory.

The critics of the left pushed by the civil rights, the war against poverty, against the war in Vietnam and the freedom of expression, did all the work to discredit the planning system. The left persuaded the planners themselves to join forces with "defender town planners" and to start practicing bottom-up planning (Davidoff, 1965).

Despite the similarities between the "disjointed incrementalist" and the "defender urban planner" (Bolan,1967) proposes a third model that would be the informal coordinator and catalyst, which becomes the fourth model of Webber's probabilistic planner.

Webber's idea of an unstable and unpredictable future allowed the social studies or new humanism method of the 1970s that highlighted the use of study systems to cope with the complex environment (Schon, 1970; Friedman, 1973).

"In 1955, the young graduate seated at his work table drew a diagram of land uses, in 1965, he analyzed the various traffic patterns on the computer, in 1975 the same person walked at night with members of the communities in order to organize against the hostile forces of the outside world "(Hall, 1996).

Practice had occupied the central concern of the discussion, shifting theory to the periphery. "Consequently, we need a new theory that allows us to connect the usual urban planning strategies with the physical and social systems to which we are going to apply them" (Galloway and Mahayni, 1977).

In the seventies, there was a resurgence of Marxian thought that did not put aside the urban issue as it was intimately related to urban geophraphy, sociology and economics. In the mid-1970s, multiple texts appeared that managed to link theories with physical realities, geographers such as David Harvey and Dooren Massey, and in sociology Henry Lefebvre and Manuel Castells.

In short, the Marxist left denounces the structure of the capitalist city, its models of land use and activities in search of self-benefit.

As Dear and Scott put it: "it tries to guarantee the collective supply of necessary infrastructures and certain basic urban services, and to reduce the negative externalities according to which certain activities of capital cause losses in other parts of the system".

"The more the state intervenes in the urban system, the easier it is for different groups and fractions to discuss the legitimacy of their decisions. Political discussions and dilemmas are progressively invading urban life" (Dear, Scott, 1981).

Marxists consider that traditional non-Marxist theory is by definition empty because it has ignored the political factor. In the same way that Plato told his disciples to move away from the Agora (synchronic space) to take refuge in the gymnasium (anachronistic) where rhetoric could be cultivated due to the tranquility of the environment (Senett, 2019).

As Scott and Roweis point out: "theoretical urbanism sets itself the task of rationalizing irrationalities, and tries to materialize itself in social and historical reality (like Hegel's spirit of the world) by imposing a series of abstract, independent and transcendent norms."

Later Cooke points out that urban planning theorists should detect the mechanisms that cause changes in the type of planning to be used, rather than remaining in theoretical idealizations.

Among all this intellectual rhetoric, the distance between theory and practice is clear. To this Forester, based on Habermas's proposals, states that:

"A critical theory of urbanism helps us both from a practical and an ethical point of view. This is the contribution of critical theory to urban planning: pragmatism with a vision to seek true alternatives, correct false expectations, counter cynicism, promote research, collaborate in the extension of political responsibility, commitment and action. Critical urban planning practice, technically well prepared and politically sensitive, is an organized and democratic work method. "(Forester, Hall, 1993).

However, Peter Hall's vision describes a tendency to the eternal rupture between theory and practice that is practically inevitable.

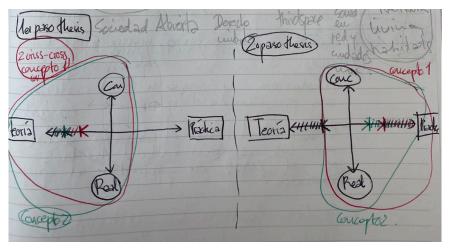


FIG. 1.3 Explanatory scheme of bridging the gap Theory and practice Source: Made by author

Problem statement

The gap between urban theory and practice is increasing and the urban planner is more marginalized and non-legitimized (Hall, 1993). The technical values of the urban planner, be able to spatialize the more sensible aspects of reality are being neglected.

Some academics started to study how the city became analyzing the ideas the shape our cities and our realities (Solà-Morales, 2015) and how realities can become teories (Lynch, 1960). This perspectives are relevant in the discussion of how urban theory and practice can go hand in hand.

Recently, the concept of open city (Senett, 2019) is popularly discussed. So I am looking to the concept of Open Society was materialized during the post-war 1950s period and Welfare State 1960s - 1970s against the numerous projects of modern planning mass housing developments (Van den Heuvel, 2018).

During this period of Modern planning, the results of this ideas discussed in the utopian period (CIAM meetings and network) have shape many parts of our cities and territories globally. However, this attempt of modern planning to provide built environments for citizens to accomplish a better living was not translated successfully into reality, they were applied in simplistic schemes and in a top-down approach. The sites selected are sites that shows some qualities achieved that we can test and extract some lessons from success and failure.

The challenge here is to evaluate those projects critically and sensibly under the light of contemporary needs, desires and demands. (social crisis and inequalities, climate crisis, health crisis, possible economic crisis, etc.).

Thus, extracting the successes and failures, we believe that we can extract lessons to update this "prototypical mass housing developments" taking those vulnerable communities (cultural and natural), without discrimination based on gender, race, class, sexual orientation, ethnicity or religion, that do not have a voice in the wider public and are equally important to achieve diversity and eudaimonia or "human flourishing" in our cities and territories.

In this sense, we can provide the means (knowledge, methods, tools and resources) to sustainably update this large number of urban pieces scattered globally and aim to achieve human flourishment along with other species in Gaia, to successfully thrive in the current and recurrent urban cyclical crisis.

Moreover, against the crítics that emphasize the "High Moderism" have failed (Scott, 1998), that partly have a valid point in their critique, we belive that the knowledge produce in this period of history is equally important for providing a historical background (Belvedere Memorandum, 1990) against the caos of daily live experienced in this period liquid modernity (Bauman, 2000). Thus, it is important to protect the valuable Modern Heritage (nature and culture) through the introduction of this in the guidelines and instruments of urban planning, providing an historical background that allows us to reflect the evolution of human beings, divulgate the knowledge of

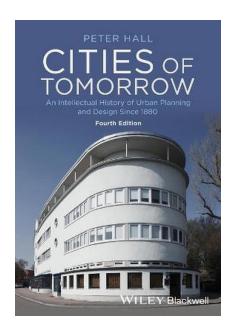
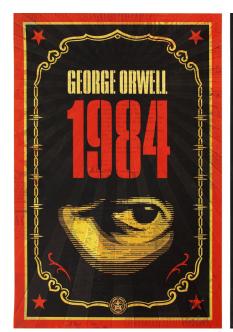


FIG. 1.4 Book "Cities of Tomorrow" by Peter Hall. Source: www.amazon.com

this period in the wider audience as well as within the profesionals of urban planning, design and architecture.

This research also aims to reveal the lack and improvement of existing policies and parameters described in UN, Habitat III and SDGs and local policies. With a more critical approach, they are based on subaltern studies and reflect the parameters and findings that inform administrations and institutions about most of the problems to be taken into account.





 ${\sf FIG.\,1.5.\,\,Books1984\,and\,Animal\,Farm\,\,by\,George\,\,Orwell,\,edition\,\,2020-Source:\,\,www.amazon.com}$

Systems of Inquiry

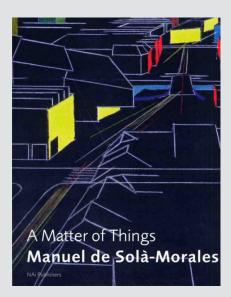


FIG. 1.7 Cover Book "A matter of Things" (2008) Source: www.naibooksellers.nl/

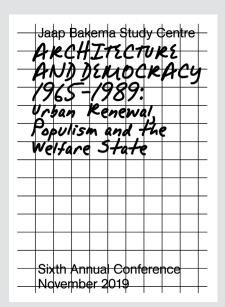


FIG. 1.6 Poster of the conference in NAI (2019) Source: www.monicahutton.com/jaap-bakema

Motivation and influences:

During my studies in architecture, I could not understand the projects as a part of a whole, city and its territory. After graduating in architecture and work eight years in the professional practice I realized that we tend to ask, what and how. Not deepening much on the why. This is the reason I felt the urge deepening my knowledge in academia and specially in the dialogue between theory, research, and practice.

Inspired by the book "A Matter of things" published in 2017 by Manuel Solà-Morales, I am interested in investigating the ideas that shaped the reality (accumulation of layers and fragments) of our cities and territories. Specially in the relation between urban design and architecture, where subject "matter" and object "things" interact.

This long-term project starts analysing the concept of Open Society which emerge in the post-war, Welfare State time periods which seems a recurrent that is still relevant in the cities of today. I engaged with this idea at lectures in TU Delft "architecture and democracy, celebration of Jaap Bakema". Moreover, I see many echoes of this concept in the contemporary discourse, in the book Building and dwelling (Sennet, 2019), the book of Ancient, Modern, and Contemporary practice of citizenship in East and West (Bracken, 2019, 2020) among others.

Finally, my learning about the group Team X emerged when I studied them in Barcelona during my architectural degree which I found an interesting breaking point with the functional approach of the CIAM, bringing the human dimension at the core of design, introducing sociological, anthropological among other perspectives.

- Explore the relation between ideas, concepts and reality that shapes the city (Solà-Morales, 2008.
- Advocating for diversity and inclusion: Suppressed voices and marginalized communities (Subaltern studies).
- Promoting engagement between research, theory, and practice in an iterative process and dialogue. (Van Eesteren).
- Safeguard and promote heritage as driver of urban development with a critical take as mention in (Belvedere Memorandum document) and Cultural Landcapes (Sabaté, 2007) and to address the critiques of Z. Bauman on post-modernity so to provide historical background to our cities of today.

Objectives:

- Attempt to bridge theory and practice, as a long term project, thought a critical open framework (methodology) in which diversity of practice and theory can dialogue.
- Methodology to investigate places and concepts while depicting the relationship between those in different countries and cultures.
- Give continuity to Modern Heritage to the present time and discourse by embracing the social purpose, wills and character of the project.

Research questions:

To what extend the concept of Open Society is still relevant in 2021, in the contemporary urban project and discourse?

How can we critically reconceptualize the Modernist project of the Open Society into the ecological project utilizing a sustainable habitation, fair and open approach to achieve "Flourishing" for all beings in the planet?

What would Bakema and Subias would do if they would have to update 't Hool and Montbau with the experimental character of the original proposals?

Which are the means, mechanism, resources and tools (toolkit) available for the process of design and development, so we can create and flourish slowly together?

Theoretical framework

Open Society: H. Bergson, K. Popper, J. Bakema, C. Alexander.

Open Society is a term coined by the philosopher Henri Bergson (Bergson, 1977) in which he explains using the analogy to close mind (static) and open mind (dynamic). The Open Society would refer to societies that they rely on trust and transparency that have a government that guarantees it. This concept of Open Society was later developed further by the British (austrian-bron) philosopher Karl Popper after WWII. The vision of Popper about the Open Society was a historic continuum from the organic city (trival or closed), passing by Open Society (critical attitude towards tradition) and towdars a abstract or despersonalized society (Popper, 1945, 1966). Bakema introduced this concept in Otterlo 1959 meeting.

Contemporary urban discourse: UN Habitat, SDG UN, Critical regionalism, etc.

The leading frameworks we have today are addressing the global phenomena in which we have the UN frameworks making pacts and objectives for the countries to aling their policies and contribuite to a more inclusive and sustainable countries. Moreover, in the field of theory, still Critical regionalism is a leading theory in which global and local are brought together, descibring more a critical attitude towards the place.

Critically: (Critical theory) Subaltern Studies - Antonio Gramsci.

Critical Theory is a group of theories from different disciplines very rooted with the Frankfurt School. Critical theory is an approach to social philosophy that focuses on reflective assessment and critique of society, culture and their values in order to reveal and challenge power structures. The subaltern term was reintroduced by Gramsci (McGrail, 2011), it refers to the marginalized social groups and the lower classes of societies because of their race, ethnicity, social class, gender, sexual orientation or religion by the power structures, knowledge and narratives of societies dominant group (Post-colonial studies)

Reconceptualize: deterritorialization and re-territorialization (assemblages),

Deterritorialization is a term coined by Deleuze and Guattari in Capitalism and Schizophrenia (1972). Reterritorialization is process of restructuring a place or territory that previously experienced deterritorialization Deleuze & Guattari, 1972). "Relative deterritorialization is always accompanied by reterritorialization" (Deleuze & Guattari, 1972).

Assemblage theory is an ontological framework developed by Gilles Deleuze and Félix Guattari, in his philosophical project and book A Thousand Plateaus (1980).

"Assemblage theory provides a bottom-up framework for analyzing social complexity. Assemblage theory asserts that, within a body, the relationships of component parts are not stable and fixed; rather, they can be displaced and replaced within and among

other bodies, thus approaching systems through relations of exteriority." (University Texas, 2016).

Open systems and networks: C. Alexander, M. Castells

A system is considered open when occurs an exchange with the outside of the system occurs. Most open systems have exchanges with the outside, that is, with other systems of the same or different dimension.

Sustainable habitation: Liveable approach + Environmental approach (M. Van Dorst).

Sustainable habitation approach explained by M. Van Dorst is a combination of the liveability approach (PEOPLE+NOW) and the environmental approach (PLANET+FUTURE). This combination also resonates with the economic model of K. Rasworth "Dougnhout economy" in she frames the market within two limits (ceiling "the planet" and a bottom "minimum liveability).

Ecological project (Gaia): Lovelock, Conrad, Margalef, Deleuze & Guattari, Latour.

The word Gaia comes from the greek word "goddess of Earth". The Gaia hypothesis is an interpretive model that states that the presence of life on Earth fosters adequate conditions for the maintenance of the biosphere (Loveslock, 1985, 1995). According to the Gaia hypothesis, the atmosphere and the surface part of planet Earth behave as a system where life, its characteristic component, is in charge of self-regulating (tending towards equilibrium) its essential conditions such as temperature, chemical composition and salinity in the case of oceans.

Eudaimonia, The good life, Care of the Self: Aristotle, M. Foucault, G. Bracken

Eudaimonia is the term used by Aristotle to describe the idea of "flourishing" or selfrealization as it appears in Maslow's pyramid. Eudaimonia is achieved through the practice of the good life which Aristotle proposes a combination of philosophy, politics and pleasue-seeking (Bracken, 2019). G. Bracken develops further the idea of the good life and Care of the Self (Foucault, 1988) making a comparative study of Modern and Ancient, as well as contemporary, practices of citizenship in East and West in which he finds similarities between philosophies.

Create together: Genealogy philosophy (Nietzsche, Foucault), Co-creation (Amsterdam living labs)

Instead of legimizing "the truth" the geneaology philosophy proposed a system of back in up and accepting it because the notion of thruth is very relative in relation to values and belives. The most recent example is the project Living Lab in Amsterdam where they try to put in practice trying to built capacity by bringing many actors togheter (transversal and interscalar: private-public-civic-academia).

Conceptual framework

This research proposes and approach to the built environment (socio-techological transition) embracing the intersectionality of philosophy, politics and pleasureseeking (Bracken, 2019), where this framework is set to co-create in a playful manner to achieve flourishing.

The three networks and their elements are described in the (fig1.10) in which the liveable and environmental approach is combined into a Sustainable Habitation approach (M. Van Dorst, 2019) and Doughnut model (Raworth, 2018). Understanding the three different spheres of the built environment (human, nature, technology) we propose a conceptual framework in which technology is the mediator or rational language (pattern language) to communicate and learn between human and planet behaviours.

The principles are assessed conceptually and empirically around five topics.

The methodology to assess conceptually the principles used: UN frameworks (From global to local current frameworks) and critiques to modern planning such as J. Jacobs, C. Alexander, and J. C. Scott.

The methodology used explore two case studies (empirical analysis). It is through the understanding of the interface as a place of mediation between in-out or in the trialectic of space and specially the lived space (Lefebvre, 1974), where conceived and perceived are performing together. This lived space perform in rhizomatic structures (Deleuze and Guattari, 1980) through the body (skin) and senses (visual, tactile, olfactive, taste and sound) creating experience of the space (Pallashma, 2005).

In the Atlas each case is set in five critical cartographies (History, Geography, Socioeconomics, Form-Scale-Matter and Technology-Networks. The process of deconstruction of those cartographies is address with the concept of Atmosphere and Sequence of space-time, a similar but different approach to Scale and Environment that was worked in the Team X. Due to complexity and lack of sensory data we will work the visual with some notes that refer to the other senses and feelings.

In this interface we compare with the principles and detect some urgencies in each cartography which later can be assessed with the Pyramid of Maslow to see at which level is the urgency and what needs must address.

The assessment framework is based on Maslow's pyramid (Carmona, 2020) in which generalized between survival and transcendence 5 categories of needs. Although this model had critiques, but will help us to deal with the basic needs (Physiological and safety needs), the psychological needs (esteem, love and belonging) to complete the deficiency threshold to grow and flourish.

And the actors which in this case as we mentioned in the beginning are the planet and societies (individual, communities, societies, etc.)

Environmental psycology and Behaviour, Language adquisition device (Chomsky), Intuition Common language (Pattern Language) Human ← → Technology ← → Nature



Co-existence habitation Networked Living habitats

Socio-Techological transition

FIG. 1.8 Diagram co-existance habitation approach. Source: Made by author base on drawing Sustainable habitation, 2019, M. Van Dorst

Dialogue: (Research and design) A Pattern Language as a common language Toolkit or Baggage:Frameworks, Methods,, Instruments, Tools, materials.

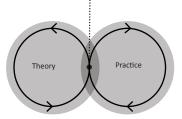
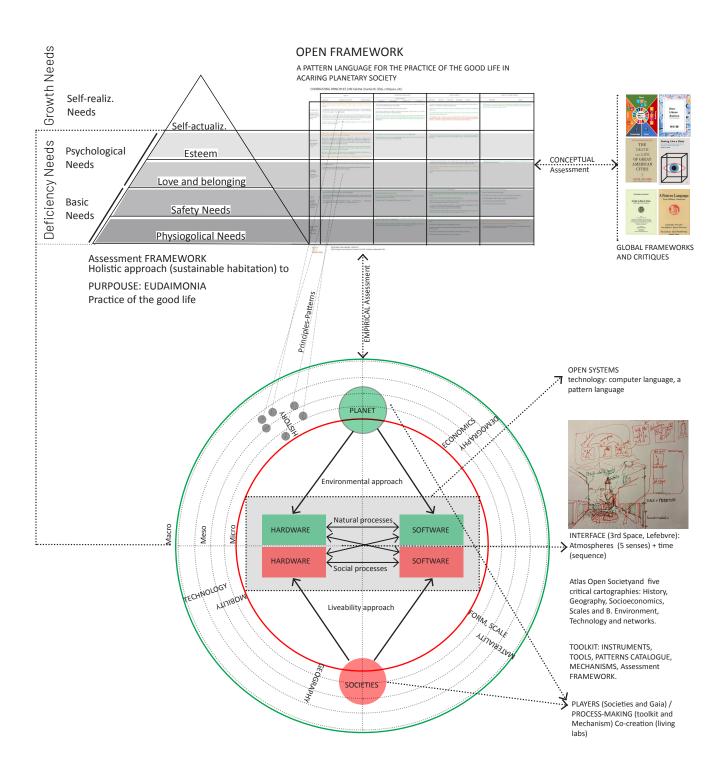


FIG. 1.9 Feedback loop between theory and practice through reserach and design (Patterns as common (anguage)

Source: Made by author



 ${\sf FIG.\,1.10\ Conceptual\ frameworks\ (conceptual\ assessment\ and\ empirical\ assessment)\ for\ co-design\ approach.}$ Source: Made by author

Methodology

Methodology, research strategies and techniques.

The methodology and techniques grounded in critical theory a branch of social philosophy and with many other disciplines, advocating for the suppressed and marginalized voices and to avoid personal biases.

The methodology proposed to address, the critical appraisal on the concept of Open Society in Western Europe, is a comparative double tier assessment (conceptual and empirical) of the Open Society concept.

The methodological it is addressed from an in-between (constructivist, advocacy and pragmatic) but mainly pragmatic worldview, in order to address the complexity in urban matters "wicked problem" as well as reflect with critically on the subject matter. Due to is dynamic character, we will employ mixed methods (qualitative and quantitative) and abductive reasoning (reflecting on the results).

The method of production of knowledge (fig 1.12) selected is mode-2-knowledge by design systematic research and abductive method, combining analytic thinking and design thinking with using mixed methods and techniques so to deal with complexity into a dialogue (fig 1.11) to depict the facets of truth and knowledge.

Material:

The 64 Principles published in the Wonen magazine will be used as a framework to evaluate the results (conceptual and empirical).

For the empirical study and comparison of the concept of Open Society in two case studies. The selection criteria of two cases is very specific and for this the following selection criteria is established:

- 1.-Period 1950s-1970s (Western Europe)
- 3.-Same size (Ha)
- 3.-Diversity of typologies and association in scales
- 4.-Involvement of cooperatives (users, promoters)
- 5.- Willignes to experiment and achive high urban quality
- 6.-Knowledge transfers (Interbau exhibition Berlin, Bakema-Subias)

Regarding the source of data used in the exploration proposal, the sources which the data has been extracted are official pages such as Eindhoven City Council, Barcelona and other platforms that complement this information such as geofabriek. de. Additional information was taken from official documents (national policy frameworks, Barcelona / Eindhoven city plan, AMB and Noord Brabant strategic plan



FIG. 1.12 Modes of knowledge by design Source: S. Nijhuis and J de Vries (2020)

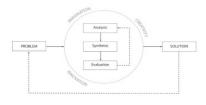


FIG. 1.11 Design as a dialogue between a problem and a solution

Source: S. Nijhuis and J de Vries (2020)



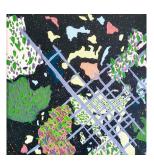






FIG. 1.13 Process painting 4P project (Phases) Source: Made by author

and other documents cited in these documents). Regarding the metadata used for analysis and testing, the platforms used are opendatabarcelona and the Institut de cartografía de Catalunya (https://www.icgc.cat/) while in Eindhoven we used the opendata in the gementee website and in Pdok (https://www.pdok.nl/

The Methods and Techniques used in the analytical part will be:

This work aims to investigate the discursive and projective validity of the Open Society concept, with a double tier revision, acting as follows:

1.-Starting by the conceptual assessment

This revision consists in evaluate conceptually the validity with the contemporary need, demands and desires of today. So, the principal material of the section are the 64 principles for total urbanization (published in Wonen magazine) and contrasting with the UN global frameworks (New Urban Agenda and SDG) as well as the critiques to the Modernist project (J. Jacobs, C. Alexander, and J. C. Scott).

2.- Empirical assessment:

The empirical revision is carried out by the contrasting of the principles with the empirical results extracted from the methodological process of deconstruction (sequences "chair to the city" and points of atmospheric intensity to depict the feeling as well as link it to the knowledge excavated in the appendix) into 5 critical cartographies, which builds an Atlas of the Open Society, that provide the fundamental material to study the phenomena and patterns that have arisen in the friction between the place, the imposed ideals or power structures and the reaction generated by users (acceptance, denial, resistance). To depict those cartographies have been used many mapping techniques: 3x3x3, palimpsest, etc.

The research uses mixed methods (quantitative and qualitative) of two case studies where it is intended to draw conclusions to contrast with the principles. Extract conclusions and results and depict the urgencies still latent and need to be addressed on the sites aligned with the principles.

After, getting the results we can compare the two case studies and find similitudes and differences of those sites, their behaviors, and results to the same concept (although is transferred literally).

3.-Final assessment

In this final assessment we look at what happened between the concept and the implementation and try to give explanations on how the relation between concept-reality is.

4.- Reconceptualization and articulation discourse.

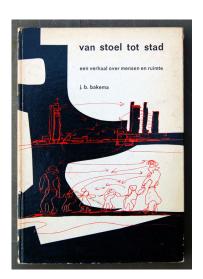


FIG. 1.15 Book "From the chair to the city" also divulgated by national Dutch tv by J. Bakema Source: www.amazon.com

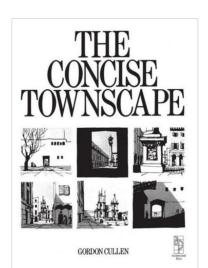


FIG. 1.14 Book on design method "the concise townscape" by gordon cullen.

Source: www.amazon.com

The Methods and Techniques used in the empirical and observational analysis are:

- a) The mapping: These are a set of cross examination (case studies) to test empirically the critics explained in the Literature Review and the principles revised: Next five maps are critical cartographies that depict, test the principles and cross examine in both locations, Eindhoven and Montbau.
- Historical: (palimpsest landscape as anamneses, performance, and conformance analysis)
- Geographical: (topography, orientation buildings, climate and landscape diversity, water discharge, roofs and gardens) catalogue and Critical Cartography
- Socio-economic: typological diversity physic-social-economic comparison (matrix format, clustering, and mapping),
- -Built form, scales and materiality: grid, morphological study, composition and proportions.
- -Technology and networks: Communication networks, mobility networks, access to networks.

These five critical cartographies have been produced combining sensitive analysis (atmospheres) of the place and a critical analysis with different methods and techniques, such as clustering, overlapping, comparing and measuring, and juxtaposing diverse scales in the same map. Thus extracting empirical results from both case studies and contrast them with the selection of the 64 principles (assessment framework).

b) On-site visits: The two case studies have been extensively visited and sensitively research (experience and observational) on site in 't Hool (Eindhoven) to depict through the methods of G. Cullen on cognitive reading of the sequences from the chair to the city and improve it with the depiction of the atmospheres (Zumthor, 2008) through the senses (Pallashma, 1996) such as smell, sound, textures, volumes, light and temperature.

c) Informal interviews and chats: I could make few informal talks to understand better their needs and desires, recorded in audio.

In this way, detected successes and failures can be analysed and detect the global and local phenomenon.

For articulating a narrative that will address the current issues and bring a more contemporary vision of sustainable and inclusive development, we generate a discursive rupture and articulate it with a new vision based on subaltern approach

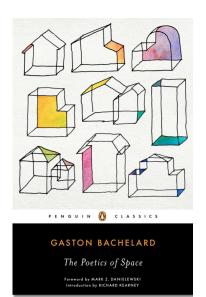


FIG. 1.17 Book "Poetics of Space" by G. Bachelard. Source: www.amazon.com

that advocates for the practice of the good live under an open sustainable habitation model.

After the evaluation on the urgencies on both sites we provide instruments to guide and steer the project (vision, principles, agenda, guidelines) and a fully equipped toolkit to operate (assessment framework, Pattern catalogue, mechanism, etc)

Expected outcomes:

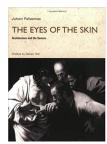
Assessment to administrations about the situation on those case studies ('t Hool and Montbau) for possible future policies, projects and practices.

Future publications to inform colleagues in academia and practice the results of the assessment about the gap between theory and practice as wellas the validity on the concept of Open Society as discourse and practice. Reflection on modernity and propose an approach to critically reflect, provide frameworks, and tend bridges to dialogue between theories and practices.

Methodology, as well as techniques, to depict the complexity and dynamism of the built environment and translate into urgencies and potentials, for professionals in academy and practice to utilize it. Atlas of Open Society and its five Critical Cartographies (method)

Urban toolkit: For the possible actors involved in projects alike (multi-stakeholder and multi-scalar), advocating for those vulnerable communities (cultural and natural) that have no voice in the wider audience and are equally important to achieve flourishment in our cities and territories.









 $\label{eq:Fig.1.16} FIG. 1.16 \ \ Books on experience and perception (Sensing and experiencing) of space in architecture and urbanism.$

Source: www.amazon.com

Exploration-selection visual sequence

Case study 't Hool, Eindhoven, the Netherlands.





Site Visit case study 1: Location: Eindhove Date: 27/02/2021

Hours visit: 10:30 - 14h CET

Temperature: 7C
Sky: 10h cloudy-13h sunny
Activity: Calm neighbourhood (could be because of Covid-19), neighbours going for groceries, walking dogs(++), kids playing in the cluster hearts and going to be allowed the control of the country of the hockey game, construction reparations, kids with parents playing in playground.

⊕1..1..¶

Route: Rotterdam CS - Eindhoven CS + bus 3 ('t Hool) + walking/ same route back

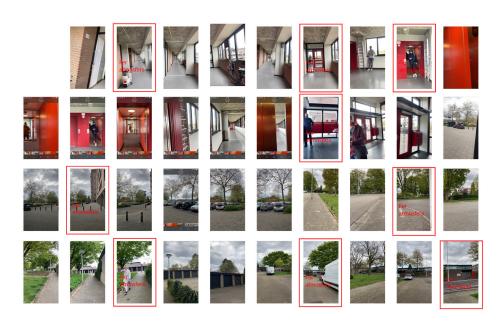


FIG. 1.18 Sequence A't Hool, Eindhoven, NED. Source: Made by author













Exploration-selection visual sequence

Case study Montbau, Barcelona, Spain.



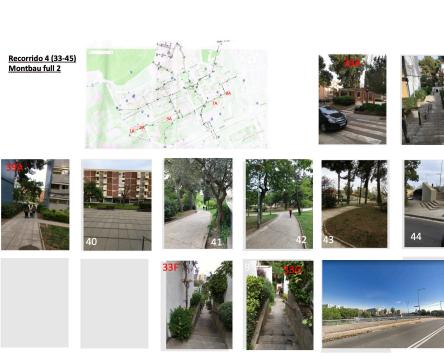


Site Visit case study 2: Location: Barcelona, Montbau Date: 28/02/2021 Hours visit: h CET Temperature: C Sky: clear sky Activity: Route:



FIG. 1.19 Sequence A't Hool, Eindhoven, NED. Source: Made by author













Method: Visual sequence "chair to city"

Study of Built Environment: space, scales and time.

City to chair sequence (A) in 't Hool, Eindhoven, NED.





FIG. 1.20 Sequence A't Hool, Eindhoven, NED.Source: Made by author

Chair to city sequence (B) in 't Hool, Eindhoven, NED.





FIG. 1.21 Sequence B 't Hool, Eindhoven, NED.Source: Made by author

Method: Atmospheric intensity

Study points of atmospheric intensity

City to chair sequence (A) in 't Hool, Eindhoven, NED.

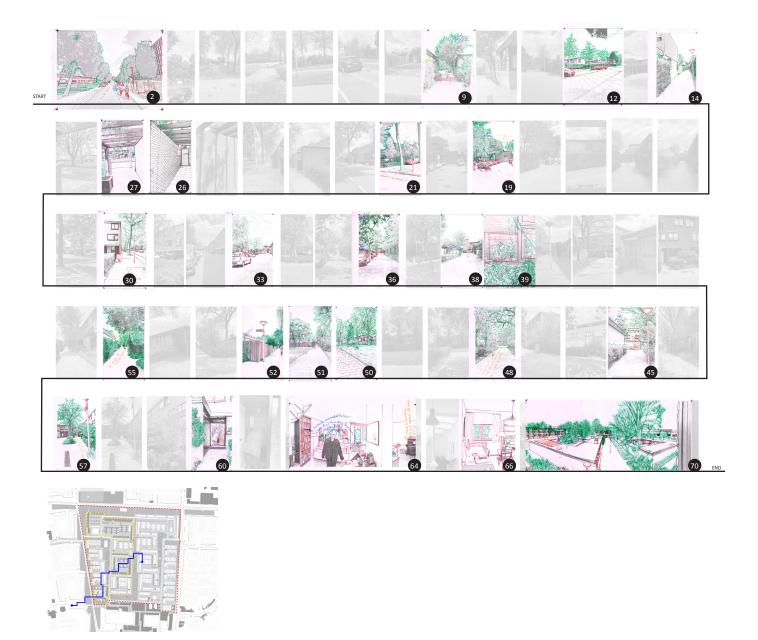


FIG. 1.22 Sequence A 't Hool, Eindhoven, NED.Source: Made by author

Chair to city sequence (B) in 't Hool, Eindhoven, NED.



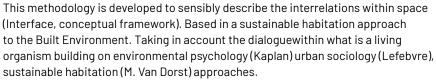


FIG. 1.23 Sequence B 't Hool, Eindhoven, NED.Source: Made by author

Method: Atmospheres

Deconstruction of Atmospheres





Key concepts: Atmospheres (Zumthor, Pallashma), Lived space (Lefebvre), Heterotopia (Foucault), Multiplicity (Foucault), Rhizome (Deleuze & Guattari)



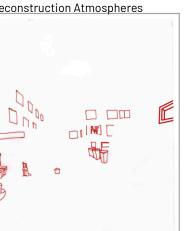
FIG. 1.24 Sequence A t Hool, Eindhoven, NED. Source: Made by author



Signs of traces (h



Outlines cognitio



life: Heterotopia, Thresholds, activity uman and non-human)



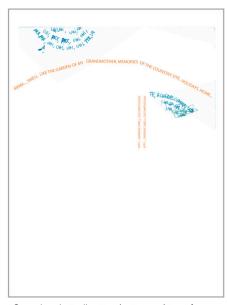
and form: Volume, geometry, scales, n, etc.



Nature and Landscape: Missing data on natural processes, relation to human, etc.



Light and use of space: Geography, climatology, behaviour of living species in the areas, performace of materials etc.



Sound and smell: acustics, meanings of conversation, perfume area (signs of health).



Texture and colour spectrum (Matter): tactile experience, temperature, symbols, etc.

Method: Atmospheres

Lived space (Lefebvre, 1991)

City to chair sequence (A) in 't Hool, Eindhoven, NED.





FIG. 1.25 Sequence A't Hool, Eindhoven, NED.Source: Made by author

Chair to city sequence (B) in 't Hool, Eindhoven, NED.



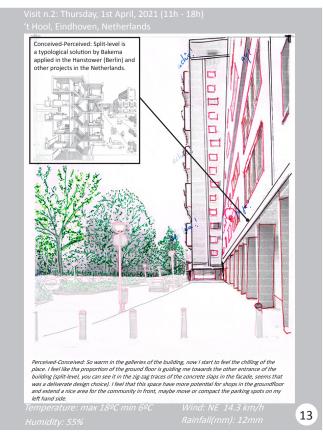




FIG. 1.26 Sequence B't Hool, Eindhoven, NED.Source: Made by author

Selection criteria case studies

Criteria:

The cases comparated started from the analysis of the period 1950s-1970s and the developments carried out during those periods in Spain and the Netherlands, in a result of urban developments, specially mass housing projects. Therefore determining the possible Atlas of Open Society in those countries. The criteria stablished to select the different case studies has been the following:

By reducing to three cases in each country following the criteria and the last step was a short first visit to the sites. In the last step, it has been reduced by following the next criteria:

0-Western Europe (restrictions traveling due to covid-19)

1.-Period 1950s-1970s

2.-Knowledge transfer (Interbau, Bakema)

3.-Diversity of typologies and association in scales

4.-Involvement of diverse actors and cooperatives (users, promoters)

5.- Willignes to experiment, innovate and achive high urban quality

6.-Same size (Ha)

7- Built

The critical point here is to think if the Concept of Open Society landed in Spain, how and when?

We can state that the concept of Open Society did not land direct and openly in Spain (during autarchy period under internationalization process).

However, the decision to import the "sidelung model", investing in innovation and travels to learn from that cristalized with the fascination during the expo Interbau (Berlin) where the comissioned architects got inspiration in Bakema and projects related to him. This brought to the project of Montbau the hidden knowledge developed by the long tradition of urban planning and experimentation of the Dutch CIAM groups (Opbow and De 8).

Therefore, we can conclude that the concept of Open Society and total urbanization principles landed in Spain inderectly in a banal form of "copying".



FIG. 1.27 International exhibition in Berlin 1957 Source: https://hansaviertel.berlin/interbau-1957/ geschichte-interbau-57/

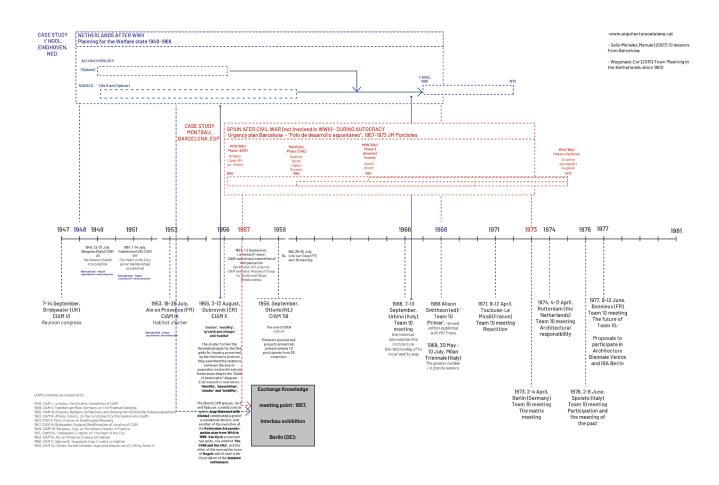


FIG. 1.28 Design as a dialogue between a problem and a solution Source: Made by author data source: www.teamx.org; publication Oriol Bohigas Cuaderns.

Selection criteria case studies

Last step we select one case of each with this characteristics: Period 1950s-1970s

THE NETHERLANDS 1954-1965

Amsterdam, Rotterdam, Eindhoven Maastricth, The Hague, Arnem, Flevoland, Groningen













Builtenveldert, Amsterdam, NED.

Year: 1958





Amsterdam West, Amsterdam, NED.

Year: 1950





Frankendaal, Amsterdam, NED.

Year: 1954





Nagele, Noordoostpolder, NED.

Year: 1964





Bijlmermeer, Amsterdam, NED.

Year:1960



Tanthof, Delft, NED.

Year: 1970



Caberg, Maastricht, NED.

Year: 1958



Year:





Het Dorp, Arnhem, NED.

Year:1960

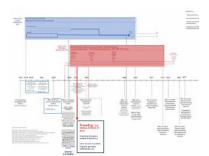


FIG. 1.29 Timeline to show the time periods Source: Made by author





t Hool, Eindhoven, NED.

Year: 1968-72



Pendrecht,

Rotterdam, NED. Year: 1949-50





Alexanderpolder, Rotterdam, NED.

Year: 1956



Year:



Presikhaaf, Arnhem, NED.

Year:



Morgenstond, The Hague, NED.

Year: 1950

FIG. 1.30 Catalogue of projects in the Netherlands between 1950s-1970s. Source: Made by author (data source: Cor Wagenaar, Nai publications)

SPAIN 1954-1965 Murcia, Caceres, Madrid, Barcelona,





Dr. R. Reinoso(...) De la colonia al Poligono -Universidad de Granada

M.Solà-Morales (2007) Diez lecciones sobre Barcelona -COAC



Poblado Fuencarral, Madrid, ESP

Year: 1956

<u>Camillas,</u> Madrid, ESP

Year: 1956



Poblado Pizarro, Extremadura, ESP

Year:1961



Entrevías, Madrid, ESP

Year: 1957



Poblado Caño Roto, Madrid, ESP

Year:1957





Sud Oest del Besós,

Barcelona, ESP

Year:1958

Barcelona, ESP

Year:1956







Year:



Year:

Year:



Barcelona, ESP

Montbau, Congrés,

Year: 1954



Year:



Bellvitge, Barcelona, ESP

Year: 1965

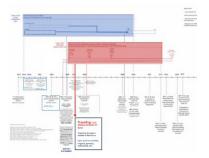


FIG. 1.32 Timeline to show the time periods Source: Made by author



Selection criteria case studies

Once we already grouped the projects in countries during the 1950s - 1970s aprox. (we consider the boundaries a bit flexible 5 years up and down). We select three cases of each with this characteristics:

- Knowledge transfers between projects and professionals.
- Diversity of typologies and association in scales
- Involvement of cooperatives (users, promoters)
- Willignes to experiment and achive high urban quality

Criteria selecction case studies: Netherlands:



Builtenveldert, Amsterdam, NED.

ear:

Area:_{280 ha} (mes. GEarth)
Dwellings:

Density: Program:

Designer: C. van Esteren
Clients: Public state

Cost: Key words



<u>'t Hool,</u> <u>Eindhoven, NED.</u>

Year:1968-1972 Area: 34 ha Dwellings:1035 dw Density: 65 inh/ha

Program:urban-development, social

Designer: Bakema & Van Den Broek, J. Stokla, G. Lans Actors:Ingenieurs van het Natuurkundig Laboratorium van Philips, Gemeente Einhoven, Engineers of Philips NatLab

Cost: Key words





Alexanderpolder, Rotterdam, NED.

Year: 1953 - 1956 Area: 220 ha(mes. GEarth)

Dwellings: Density: Program:

Designer: Opbow, Bakema Clients: Public state

Cost: Key words

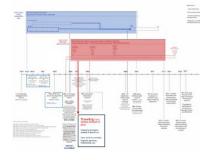


FIG. 1.34 Timeline to show the time periods Source: Made by author

FIG. 1.33 Catalogue of projects in the Netherlands between 1950s-1970s. Source: Made by author (data source: Cor Wagenaar, Nai publications)

Criteria selecction case studies: Spain







Year: 1953-1962 Area: 16,5 ha Dwellings: 2719 dw Density: 1030 dw/ha Program:

Designer:

Clients: Viv. patronat del Congreso

Cost:

Key words





Montbau, Barcelona, ESP

Year: 1956-1960 Area: 31,7 ha

Dwellings: 2200dw (1800 in) Density: 250 inh/ha Program: Housing, services,

Designer: Several architects among them: Clients: Subías, Giráldez, López PMV, Patronat de Vivienda y Cost: Instituto municipal de vivienda y Key words





Sud Oest del Besós, Barcelona, ESP

Year: 1953-1962 Area: 35 ha Dwellings: 4863 dw

Density: 625 inh/ha Program:

Designer: Subías, Giráldez, López

Clients: PMV Cost: Key words

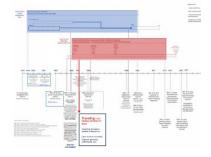


FIG. 1.36 Timeline to show the time periods Source: Made by author

FIG. 1.35 Catalogue of three projects in the Spain between 1950s-1970s. Source: Made by author (data source: A. Ferrer Aixala, Solà-Morales, Reinosa, others)

Selection criteria case studies

Last step, we select one case of each with this characteristics:

- Similiar size (Ha)
- Built (completed)

Case study 't Hool, Eindhoven, NED:

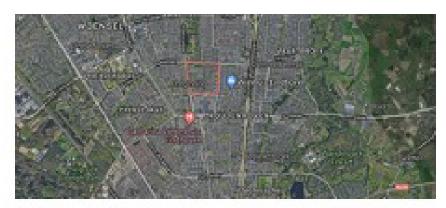






FIG. 1.37 Composition of 't Hool context and original plans Source: Google earth, Historical plans from NAI archive

| Second Second

FIG. 1.38 Timeline to show the time periods Source: Made by author

't Hool, Eindhoven, the Netherlands.

Eindhoven population: 223 209 hab **Year construction:** 1968-1972

Area: 33ha

Number dwellings: 526dw (initial) - 1053 dw (final)

Climate: Ocenaic climate

Socio-econ: High diversity housing types and high mix incomes Actors: Nat Lab Cooperative (promoter), Bakema&van der Broek

Case study Montbau, Barcelona, ESP:





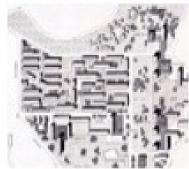


FIG. 1.39 Composition of Montbau context and original plans Source: Google earth, Historical plans from arquitectura catalana website (archive COAC)

| Second Second

FIG. 1.40 Timeline to show the time periods Source: Made by author

Montbau, Barcelona, Spain.

Barcelona population: 1,6 mil hab **Year construction:** 1956-1964

Area: 31ha

Number dwellings: 1340dw (initial) - 2226 dw (final)

Climate: Maritime Mediterranean

Socio-econ: High diversity housing types and low mix iincomes

Actors: Patronat Municipal de Vivenda (promoter), Subias-Giraldez, Iñigo, etc., Copperatives, public servants, etc (users) + Cooperative (promoter-3r phase)

Methodology process diagram

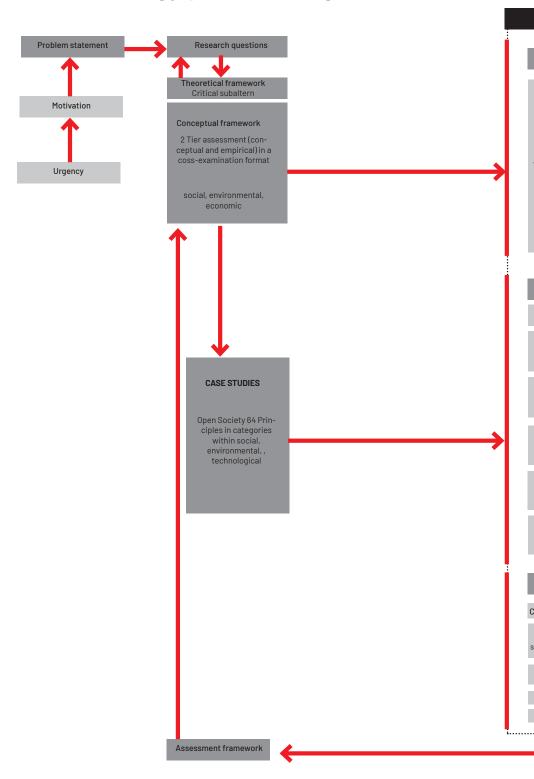
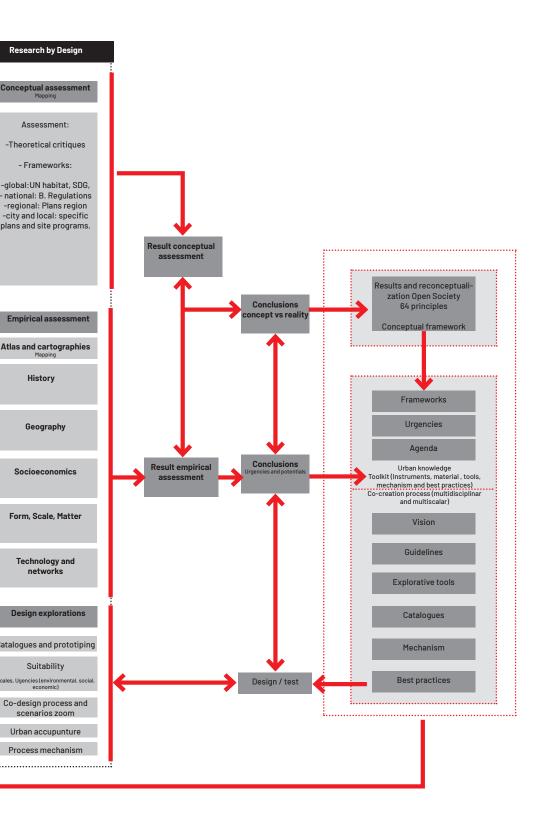


FIG. 1.41 Diagram process research project Source: Made by author



Part I

Theoretical and empirical revision concept of Open Society

Chapter 1: Literature Review

Revision Worldviews or Paradigms

For whom and by whom is this Open Society?

The question posed helps us to reflect on the history and purposes of the city and its humanistic values and virtues.

The development of the concept of Open Society has a very Western understanding and values of pluralism, forms of democracy, the spirit of society, truth, justice, openness, among other concepts.

The city in History (Mumford, 1961):

Briefly summarizing, the concept of city-state was born in ancient Greece, evolves in medieval times in the city, continues its later process in the Renaissance with the reinterpretation of its model, later with the breakdown of the traditional wall of the city and modern expansion through the urbanization, and is currently expressed in city-regions.

Open Society and the practice of the good life:

The concept of Open Society is coined by H. Bergson and developed by Popper. Bergson starts from the open or closed way of thinking (Aristotle) in which he operationalizes in the form of an open or closed system, up to the dehumanized concept of Popper. However, this system cannot be operated without actors, something that practical philosophy talks about (Aristotle, Stoics, Spinoza, Arenth, etc). This is where the concept of Open Society and the good life connects. This translates to the field of urbanism as "build and inhabit" (Sennett, 2019), showing the intrinsic relationship of transformation processes explicit in environmental psychology.

Today, under the extreme phenomenon of globalization, interconnection, and migration, we live in a world and plural societies, cultures, identities that are very easily hybridized, just like natural miscegenation.

The search for prosperity as a human being is an eternal question that has been pursued since the beginning of civilization, a search that is framed between survival and transcendence. This search for habitability in cities has been studied, described, published and implemented globally repeatedly from the Western paradigm, legitimizing actions in different cultures and values, without deep critical reflection. The paradigms that have been constructed (Western) suppress plural world views, due to their knowledge-power structures (Foucault, 2008) and Hegelian rhetoric.

The different worldviews studied at TU Delft last spring semester come from a Western scientific culture, which we can trace its origins back to Enlightenment and Colonialism. However, the pragmatic paradigm is useful and effective in urban, complex, dynamic and plural matters.

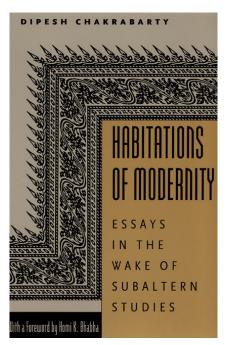


FIG. 1.42 Book "Habitations of modernity" by Dipesh Chakrabarty, 2002.

Source: www.amazon.com



FIG. 1.43 Cultural map - WVS wave 7(2017-2021) Source:https://www.worldvaluessurvey.org

Today one of the leading theories in the field of urbanism and architecture is the "Critical Regionalism" by K. Frampton. However, we find a diversity of theories and fields of study such as (Postcolonial studies, Assembly Theory and Holistic) that allow us to critically approach the study topics.

Subaltern Studies is a group that emerged in Southeast Asia that advocates for repressed and marginalized voices that had not been taken as equals. Subaltern critical theory does not distinguish by race, ethnicity, sexual orientation, religion, etc. Thus, it is only fair to use it as an approximation framework to the principles of total urbanization proposed by Bakema.



World concieved before and until 60's:

- Development process long, and they believed that urban theory was static.
- · Positivism as a true scientific method
- Ideals based on Western civilization
- Economics based on simple schemes. Growth, homos-
- Drivers: WWII, Modernization, Social welfare,
- · Liberalism, Industrialization, Knowledge economies,



World from 60's until today:

- · Relativity interconnection and interdependent.
- · Postmodernism, recognizing diverse paradigms
- Increase level of complexity due to the interconnected and knowledge.
- High level of uncertainty due to the knowledge increasment and high velocity of local and global events and phenomena.
- · Political polarization and not embracing democracy and plurality
- Hyperconnectivity and complete globalization communications
- · Neoliberalism, Capitalism, Digitization, Green economies

FIG. 1.44 Comparison of 1960 and now of the same project (lijbaan) for an Open Society (Dirk van de Heuvel) Source: made by author; data source: Nai archive and Google street view.

Frameworks (From global to local)

The universal moralism proposed by Bergson and developed by Popper finds resonances with the universal declaration of human rights that was made in 1948 in Paris organized by the United Nations, and that materialized in an agreement thirty years later in The International Covenants on Human Rights, along with its optional protocols and the UDHR, which make up what is called the International Bill of Human Rights.

These international treaties have evolved over time and with the needs of societies and the planet until today. This process has formulated several universal frameworks that guide global urban development (Habitat Charter, SDG, etc.) that include the right to housing, the right to the city, among others.

To date (2021), this research study is carried out on two cities on the European continent, and we must approach the study of the interaction of policies, governance and property, first in a global way (UN world level) and then with the gaze fixed on our continent and the forms of governance of our European Community

At the global level, the UN makes recommendations based on objectives to be achieved by nations related to the SDGs and Habitat III Agenda 2030. The United Nations Development Program (PNDU) supports countries to implement the 2023 Agenda and the SDGs. On December 11, 2008, Ban, Secretary General of the UN, urged the implementation of a new green pact on adaptation to climate change.

On December 12, 2020, Guterrez, Secretary General of the UN The Secretary General of the United Nations asked all the nations of the world to follow in the footsteps of the 38 countries that have already done so and declare a State of Climate Emergency until it is reached carbon neutrality.

In the continental framework, the European Union and its Member States signed a strategic program in 2017 outlining the future of European development policy. This "new European Consensus on Development" represents a new collective vision and a new plan of action to eradicate poverty and achieve sustainable development.

In the national framework, these policies and strategies find different ways of instrumentalizing urban development in relation to the planning culture of the place (incentives, strategies, zoning and legislation).

National framework Netherlands:

At the National level, the current policy framework is the Structural Vision of the Netherlands, an overview that models the various regional strategic projects such as the Brabant Region where policies are implemented with Nationale Keuzes Gezonde Steden in Regio's. In addition, in terms of construction, the current framework at the national level is The Building Decree 2012 (Bouwbesluit 2012).



FIG. 1.45 Document presented in Paris. Declaration of universal human rights.

Source: www.wikipedia.org

At the Eindhoven Municipality level, policies are implemented with the Eindhoven Kloppend Hart Van Brainport, and with the Hand Boek Openbaren Ruimte. (Public room manual of April 2021).

At the Woensel district level the same policies apply as in the Eindhoven municipality

At the 't Hool Neighbourhood level there is an Ambition Plan and a neighbourhood contract between the neighbourhood and the Eindhoven city council.

National framework Spain:

At the national level there is no general urban framework since there is a transfer of these functions to the autonomous communities and their governments. But in terms of construction, the general framework at the Spanish level is the CTE.

At the regional level, Catalonia has transfers in urban planning and its policy framework is the PTG (General Territorial Plan).

At the Barcelona urban region level, policies are implemented with the PEMB and the PDU. The PTMB (Barcelona Metropolitan Territorial Plan) is currently regulating the development.

At the Barcelona city level, policies are implemented with the PGM (General Metropolitan Plan)

At the district level, Horta-Guinardo, the policies are implemented through the PGM, Plan de barrio de la Teixonera and Economic Plan Recuperar Horta-Guinardo.

At the neighbourhood level, in Montbau, policies are implemented with the PGM and the document Montbau Future Plan.

These frameworks will serve to carry out the first critical appraisal of the Open Society (64 published principles) will be taken through the lenses and the global framework of the New Urban Agenda (UN Habitat III) to evaluate which are the principles that are still in force in the society we pursue today. While keeping in mind the building regulations (different in each country) for the design and execution of the proposals.



FIG. 1.46 Global documents for sustainable and resilient urban development.

Source: www.un.org / www.habitat3.org/

Open Society and The good life.

The Open Society or *Société Ouverte* (in French), was coined in 1932 by the French philosopher H. Bergson in contrast to what he called "closed society". The concept of Open Society describes a dynamic system willing towards a moral universalism.

H. Bergson describes the closed society as a static and closed belief system, as a closed mind. Whereas Open Society is a dynamic and open system of law, morals, or religion (Bergson, 1937). We have to say that the term "closed mind" and "open mind" are terms that resonate with many other authors from different disciplines and times, such as Aristotle, L. Mumford, Z. Bauman among others.

This Open Society concept was developed further by the philosopher Karl Popper after the Second World War. Popper's vision of the Open Society was a historical continuum from the organic city (tribal or closed), passing through the Open Society, critical attitude towards tradition.

Subsequently, K. Popper uses the term Open Society in his essay in conjunction with B. Russell "The Open Society and its enemies" (Popper, 1966) where he defines it as "a political system in which political leaders or the government are replaced without the need for violence, unlike authoritarian societies, in which the replacement mechanism for governments is the revolution or the coup d'état" (Popper, 1966), in other words democratic transition. Additionally, he describes this Open Society as "one in which individuals have the need to make personal decisions; unlike tribal societies or those dominated by magical or collectivist thinking" (Popper, 1966).

Popper adds that individualism, social criticism, and humanitarianism cannot be suppressed once people become aware of them, and that, therefore, it is impossible to re-impose a "closed society."

The concepts of individualism and neoliberalism influenced thought, policies and economies after the Welfare State, coinciding with postmodernity and the concept of "liquid modernity" (Baumann, 2000). Bauman used the term "liquid modernity" here, for the current form of the modern condition, described by other authors as "postmodernity", "late modernity", "second and hypermodernity".

"What makes modernity "liquid" and therefore justifies the choice of the name is its self-propelled, self-intensive, compulsive and obsessive "modernization", as a result of which, as liquid, none of the consecutive forms of life social is able to keep its shape for a long time. "Dissolving all that is solid" has been the innate and defining characteristic of the modern way of life from the beginning; but today, unlike yesterday, the dissolved forms are not replaced, nor are they replaced by other solid forms, considered "improved" in the sense of being even more solid and "permanent". (Baumann, 2000)

Baumann has drawn attention to certain problems that our cities and citizens have experienced in recent decades: Chaos forms the backdrop to everyday life; Identity has become a task and public space is conceived as a challenge."



FIG. 1.47 Books reflecting in ancient and modern citizenship within the city.

Source: www.bol.com; www.aup.nl/

Everyday life and Heteropia (Foucault, 1967, 1971, 1984), are key concepts in cultural studies and the field of sociology. Some scholars and professors such as Noam Chomsky among others, argue that capitalism and industrialization may have negatively affected our human existence and perception (Chomsky, 2011), in addition to not contributing to the democratic character in which the city was created and fostering the apathy that consumerism has brought to our day to day. Chomsky's vision of the good life and the ideal form of social organization is related to and in part dependent on his biologically basic explanation of human nature and the place of life.

In the debate between Chomsky (Darwinism) and Foucault (poststructuralism), in 1971 TU Eindhoven and broadcasted in the Dutch television, Foucault argued against the possibility of any kind of human nature, postulated by Chomsky's concept of innate human faculties such as intuition and creativity, explained in the idea of "Language acquisition device" (Chomsky, 1959, 1986). However, in my opinion this is an endless question about nature or nurture (genotype or phenotype) will be always there since our knowledge and capacity to comprehend is limited.

Therefore, it is interesting to investigate human evolution in cities, and their interaction networks, societies. To understand the needs for human interaction and their networks to do so, it is important to mention Lewis Mumford which describes the city as support for the needs for human interaction for commercial, political, or religious purposes (Mumford, 1961).

To understand one of the fundamental reasons for the existence of the city, it is important to understand that cities are not only physical spaces, paraphrasing G. Bracken, "cities are people and their network of interaction". To understand the essence of these interactions, it is important to mention Aristotle's conception of the human being as a "political animal" and the creation of the polis, a city in ancient Greek.

G. Bracken examines the practice of citizenship and the good life in Western and Asian cultures. Bracken analyses and compares the philosophical perspectives of both cultures and the search for good living, understanding the essence of the human being as a "political animal" (Aristotle). Including Cicero insisting on the idea that the wise person was virtuous, the virtue seen as reason.

In Bracken's conclusion, Aristotle's ideal of happiness is outlined, which can be understood as a combination of philosophy, politics, and the pursuit of pleasure.

"but even if the happy man values contemplation above all else, part of his happiness must also reside in the exercise of political virtues and the enjoyment (in moderation) of human pleasures. Happiness, therefore, can be seen as the best of all human goals. "(Bracken 2019)

For this reason, this research is articulated, reinterprets The Open Society (politics) and the practice of the good life (practical philosophy) through the transformation of the built environment pursuing self-realization (Maslow pyramid), dialogue and cocreation, thus allowing individuals, societies and the planet to flourish.



FIG. 1.48 Books reflecting in contemporary citizenship within the city. Source: www.bol.com; www.aup.nl/

Bakema and the Open Society

Jaap Bakema and the Open Society (2018) D. Van den Heuvel

For Bakema architectural space expressed the awareness and spirit of society in relation to the individual experience making him/her responsible for his own identity in relation to the whole and "total space".

"Bakema sought a system of change, building for the anonymous client "the great number and the big scale of things" in an Open Society, a caring society with concern for the clients, the profession, the city, the earth. A caring architect would aim to enlarge the possibilities of freedom and choice for everyone." (Van de Heuvel, 2018)

Aldo Van Eyck and Bakema denounced the administration "to be like Nazi state" were the Dutch administration determined the frameworks of society at that time and projects, so he manifested that "human flourishing" could not happen since this process is determined by a closed society.

"He sought instead to think of societies as "open wholes", of "total space" and total freedom". Any form of governance from afar abandoned his concept of "total life", denied basic needs and services to slum residents, expected "Porgy and Bess" to become entrepreneurial agents in marginalized spaces" (Van den Heuvel, 2018).

"Bakema, was a caring professional, advocating what we refer today as an equitable share of what is the common property of all, opposing the singularity of human life by calling for equality of every human being." (Van den Heuvel, 2018)

From the book we can conclude that philosophical approach from Bakema was and interesting departure which did not succeed because of the use of deterministic frameworks that he compensated with his energy and incredible willingness to tend bridges among diverse positions. Today we have more knowledge on theoretical and philosophical frameworks that allow us to "built and dwell" (Sennet, 2019) more inclusively.

The key concepts that Bakema referred in relation to Open Society and Total urbanization were: total space, ownness, spirit. (Van den Heuvel, 2018)

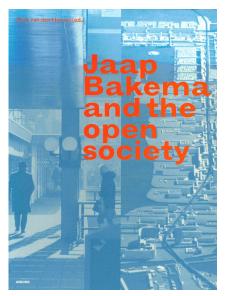


FIG. 1.49 Cover "Jaap Bakema and the Open Society" (2019) by Dirk van den Heuvel. Source: https://www.nai.nl

Total Urbanization

(Environment and Scales)

Bakema introduced the concept of Open Society at the Otterlo'59 meeting of the young group Team 10 that declared the symbolic death of CIAM.

They were critical functionalists who opposed dogmatism in the movement. They believed that a building had to show through its shape what was its meaning for society. Functionalism was a form of humanism.

Even breaking and separating from the functionalist approaches that characterized the CIAMs, many of the lessons about urban configuration continued to be applied and valid. The main concepts for discussion and work developed by Team 10 focused on the field of the built environment and scales, which they had previously investigated with the Dutch CIAM groups Opbow and De 8, methodology "type-block-group-place" developed by Van Eesteren (Sabaté; Martinez, 2007).

The approach to these concepts focused on various issues influenced by other disciplines (sociology, anthropology, etc.) that focus on various issues such as identity, association, mobility, and cluster. Showing and working on the complexity and dynamism of the built environment from a systemic approach to urban design for the human being.

Subsequently, the components and participants of Team X continued to develop in different directions. Due to the death of Bakema, the progressive dissolution of the team and its interesting debates took place.

The critical review of the modernist project initiated by A. Van Eyck finds its continuity in the critical theory formulated by K. Frampton as "Critical Regionalism" (Frampton, 1968) and which currently leads the architectural and urban design theoretical discourse.

However, currently there are other theoretical fields that should be considered (assembly theory, postcolonial and subaltern studies, holistic theory).

As we have previously commented, apart from the theoretical framework, the continuous interrelation between the actors and the continuous dialogue between them, is essential in any urban process, and for this a rational language is necessary that allows us to communicate, dialogue and agree through co-design and in networks of knowledge around the topics (Castells, 2010). For this "A pattern language" is a methodology and approach to the built environment based on network thinking that allows us to describe, communicate and work on the complexity and dynamism of the built environment.

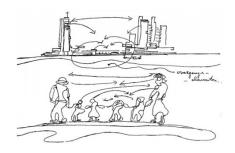


FIG. 1.52 Scheme "friendship model" by Jaap Bakema of environment as a relationship. Source: https://www.nai.nl



FIG. 1.50 Scheme on scales of association Source: https://www.nai.nl

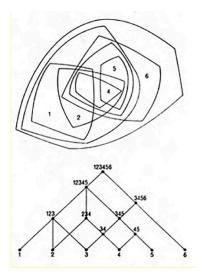


FIG. 1.51 Scheme relationalunderstanding of environment, "City is not a Tree" (C. Alexander) Source: https://www.calexander.org

Total urbanization principles



FIG. 1.53 The text from 1971 lists 64 points for architects to arrive at a better planed, humanized living environment. It was published .as a fictitious interview in the journal Wonen, no. 2, 1971. The list a criteria against "mass housing" by Peter and Alison Smitshon (in team 10 orimer) and the topics discussed within Team X conversations, Bakema points are much wider and diverse.

Source: Van de Heuvel, D. (2016) Jaap Bakema and the Open Society

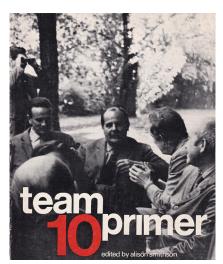


FIG. 1.55 Publication team 10 Primer Source: http://www.team10online.org/

- 1. Choice for various forms of Housing
- Possibility for occupants to alter and extend the dwelling during use. Adapting to seasons (being able to use a balcony in winter or a camper as an extension of your home) adapting to changes in age groups.
- Simultaneous contact with both urban space and landscape.
- Orientation possibilities within the urban composition from small to large and vice versa (the location of high: and low.rise buildings and public amenities)
- Possibilities to compare various kinds of living at an orderly scale.
- Equality in level of public and private transport.
- Various kinds of activities as closely related to one another as possible, such as living, education, working, shopping and leisure.
- Smooth transition from private to public
- Space for unforeseen circumstance inside and outside the home, for instance hobby+study, space+music,
- 10. A dwelling no more than 5 min walk from a public transport stop.(canopy)
- In arranging groups of dwelling, do not fell trees, do not demolish useful building and, if possible, use existing nature with its height difference, etc.
- 12. Create wooded areas on disused agricultural land, so that in 20 years' time they can become important wooded residential areas.
- In arranging groups ad dwellings, take the privacy of residents into account, especially when combining higher and lower buildings.
- Enclosed galleries in high rise blocks to prevent drafts at front doors.
- Within groups of dwellings: Safe playgrounds and kindergartens.
- 16. In the neighbourhoods, apart from the usual amenities such as consultation offices, medical centres, etc. in particular also seniors club and exhibition space – the multipurpose building (Dronten)
- 17. Basic open air swimming polls in every neighbourhood (5 to 10 min walk), temporarily covered and heated in winter. Shouldn't cost more than 200,000 guilders. Maybe build fewer official swimming pools for 400,000 guilders? Also include sauna and other body treatment facilities.
- 18. Midget golf + bowling centres?
- Houses for the handicapped, distributed over every neighbourhood of 200 dwellings each (7500 people)
- 20. Car wash and do it yourself repair facilities.
- 21. Maintenance carried out as much as possible by the residents themselves. Select window type etc. with cleaning mind
- 22. In the case of high rise, make balconies as large as a small room and as half laggias closeable and heatable in winter (the former "conservatory"), possibility of dinning outside.
- 23. Kitchen and bathrooms large enough for electrical appliances such as dishwasher, washing machine, dryer, etc.
- 24. Two toilets, one separate and one in the bathroom, for every family of 4 people.
- More than I spot for connecting a television.
- Space for solar shading outside or inside designed in advance.
- No small one-person bedrooms, but ample space in every room so you can reposition the dinning table, the seating area and the television set within the home.
- 28. Grocery storage, accessible from outside.
- Mutual accessibility on higher floors of closely grouped high-rise blocks. The "bridge streets" for deliveries + visits to neighbours.
- No vehicular traffic through neighbourhoods.
- It should be possible to keep pets near and in dwelling: pidgeons dogs cats hamsters; and of course plants too.
- 32. Apart from ardinary cupboards (preferably moveable), sufficient storage space for winter clothing, sultcases. Christmas tree decorations and camping gear.
- 33. Occupant participation in design methodology, so that a wider circle is involved in deciding on the kind of living environment needed.
- Spatial variety within the house for example through variations in bay width and use of split levels

Sufficient acoustic More Incar exten or on outdated mu

Groups of vending missing here.

For Instance, sho

- Urbanization alon Permanent exper state construct/o
- Strong and strictly Outside the energ
- and buildings, dep 43. In general: develo For the era of tot
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- Compare the silho skyline can appea congested, but also
- 47. Do we still make p only flower in "The
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- The influence of in we still speak of or
- Adelbert Ames (19
- 51. An elementary hu tomorrow..., deter There are: 3 quest
- state of energy, of state of energy, th What , who and v environment. 53. Man builds not a
- experience and to of existence... thus
- The photos taken Dwingelo widen or
- Where some of u determined by the Hoornik may also i
- In order to cope w public and what is something to want
- 57. Designing a wall of to school - (publi coordination - zon.

FIG. 1.54 Lists 64 points for Total urbanization.

Source: Van de Heuvel, D. (2016) Jaap Bakema and the Open Society; data souce: journal Wonen, no. 2, 1971 NOTE: Bakema calls "man" to human being.

materials to absorb sound from television.

sions instead of the usual concentric ones (aften based on obsolete forms of defence nicipal boundaries politics).

machines in the neighbourhoods; the American "drugstore" that sells everything is

ps for vegetables – bread – milk – groceries – magazines – newspapers – organized as es. Four together under 1 roof (500 1000m²?)

(not against) new regional energy lines, partly formed by the new roads.

rimental neighbour hoods in every region (5% extra budget for annual 5% of total n volume in the form of experimental construction?)

organized construction within the energy lines.

y lines a more improvised, scout-like and spontaneous adaptation to existing nature ending on the situation.

ping spatial awareness as an elementary subject in primary and secondary schools. al urbanization, this is just as important as reading, or at least important as sexual

ion between urban and architectural work.

- oil, water and air, people should become aware of a controlled us of space, design chase of land for the social use of space.
- uette of a former Zuiderzee town with that of our new urban expansions. Such a new r chaotic or oppressive, but also controlled and expanding. Space can feel too vibrant and informative.
- vians that respect space or do we treat space violently and aggressively? Think of the Little Prince" (de Saint Exupéry)
- may be able to purify at some point, but how can we remove incorrectly positioned e when we are still not building enough houses?
- correctly designed or well designed space on human life has hardly been studied! Yet pressive: liberating - messy - orderly - dull -vibrant - monotonous.

19 (published 1950= Hanaver Institute of Design)

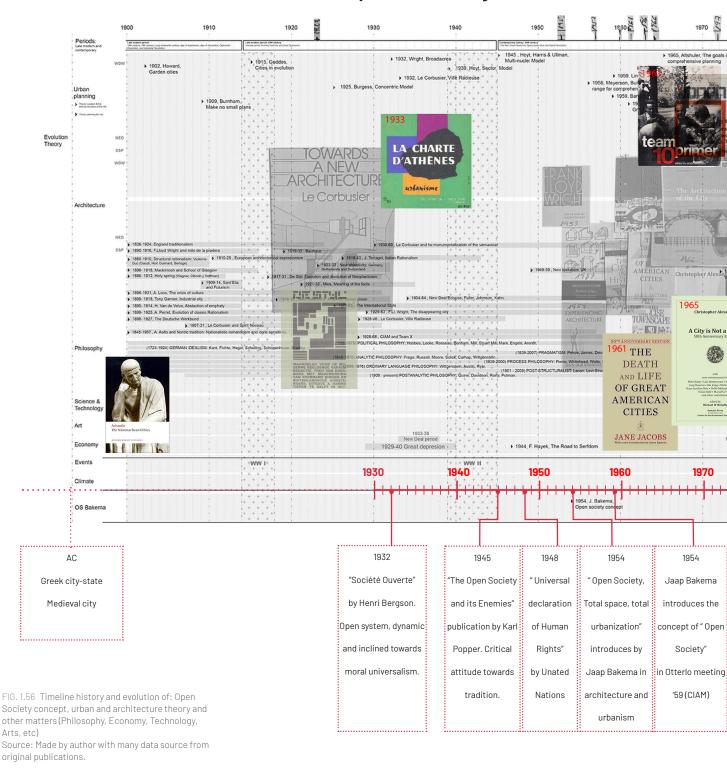
- man need is the ability to compare. ...one with the other..., ...yesterday with today and mining location: ... Knowing where you are ...
- ions of human existence ... What am I?, ... Who am I?, ... where am I? If existence is a which man form a part through his ability to become aware of his participation in that en these three question acquire new significance in architecture and urbanism. Of the where am 1?, the last of these is also partly answered by a spatially well-designed

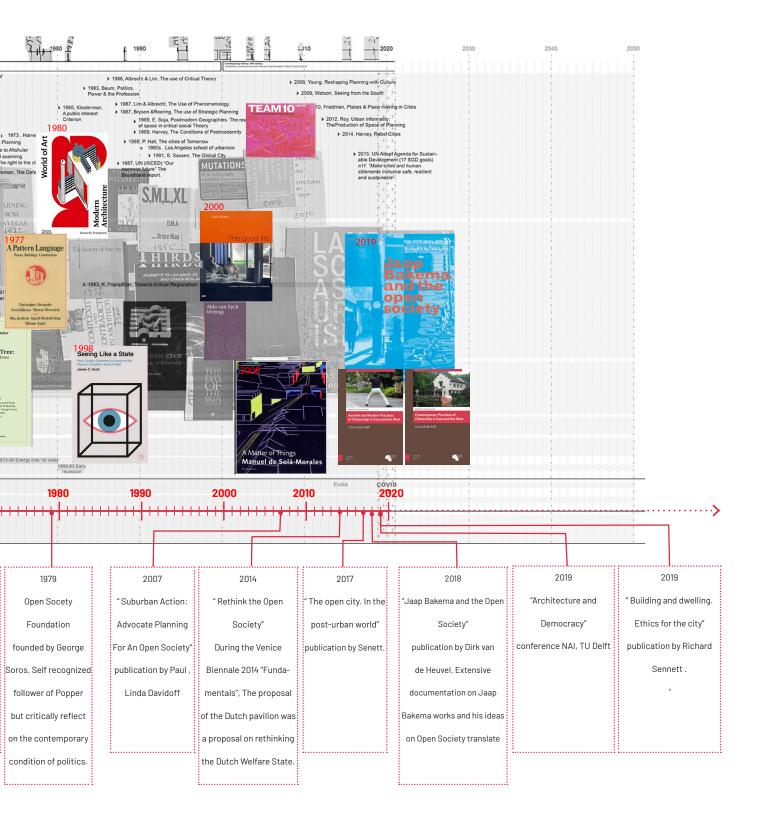
nly to protect himself in his existence, but also to learn to live in good harmony with become aware the laws of existence or, if you wish: ... to become aware of the miracle also of space...

- from the Moon, the signals we picked up from astronauts or in the radio telescope of ir spatial awareness.
- once thought were angels, we now see traces of jet fighters, but there are more .. Marvelling at space is an essential aspect of human happiness and is partly way we use space. In this case, "the being of life and having of life..." by poet Ed. nean: wanting to be in space and/or wanting to have space.
- ith the imminent complete urbanization, we need new relationships between what is private. Space will increasingly have to be maintained publically. Land is no longer to possess. How is that possible? For what about the space above it?
- f houses or group of houses is then a matter of determining shopping, parking, going c) transport at the same time. This can to be done through scale and function ng (the work of 5.A.R., Architect's research foundation)

- 58. Our present time and the time and the time ahead will probably be chiefly characterized by communication - automation - playful use of time. This was evident in, among others, Osaka 1970's Dutch section with its communication machine.
- 59. The present and past is a time of production and exploitation . It was preceded by the medieval city of reliaion and defence. The built signs of it are still clearly visible to us in our cities with, successively, medieval steeples, remnants of ramparts.
- 60. There is an increase (albeit in drips and drabs) in knowledge of human patterns of behaviour, and thus slightly greater insight into the need for spatial quality.
- 61. More important than increase in this knowledge, it appears to me, is a recognition of the architect in
- 62. Everyone possesses same basic sense of what to him is a fitting space, but he has often been discourage from using it (by making allotment garden sheds identical for instance)
- This means that the task of determining space is one sided and concentrated too much in the hands of specialists: of architects (allied to development companies in greater or lesser degrees) who, however, will never be able to know what all those types of spaces should be like in the imminent total urbanization for increasing conscious people (increasing numbers of students at universities: improvement of primary + secondary education. Roberts Frost: "everybody is born free and equal, free at least in his right to be different" ...
- Every Monday, the Royal Institute of Dutch Architects and Urban Designers (BNA) should take over the front page of a large daily newspaper, and state:...

Evolution Open Society





Critiques to Modern Planning

The modern ideals, full of good intentions to improve human conditions for a better society, taken by the modern movement to articulate this willings into space and urbanization were implemented until the 1960s.

However, this process of urbanization and architectural development implemented by the modern movement has been criticized and proved failed by many disciplince and academics.

In the field of urban design and planning Lewis Mumford in "City in History" which states that if we the city is a living organism, this regionalistic view goes against the "machine-like city" of the Funcional city of the Modern Movement.

Another intellectual and journalist specialized in urban such as Jane Jacobs was one of the first to make a statement in 1961 in her book "Death and life of great american cities" that cities are complex and if we try to separate its functions and parts with simplistic schemes (modern movement, R. Moses) cities loses its life and dies.

"Intricate mingling of different uses in the cities are not a form od chaos. On the contrary, they represent a complex and highly developed form of order" (J. Jacobs)

In the book Jacobs argues that the liveability of a city depends on several points: population density, mixed uses, old buildings, short blocks, local economy and natural surveliance. Moreover, Jacobs was one of the first ones to advocate for bottom-up planning, starting from the community needs, demands and desires.

However, Lewis Munford, holds a point in explaining that the resources in the community are not enough to undertake some decisions and finances in elements that affect other scales.

An academic that backed up this complexity phenonmenon within architecture and the city was Venturi and Scott Brown in their book "complexity and contradiction" by

James C. Scott in "Seeing like a State-certain schemes of improving human condition" states and proves how simplisticly schemes implemented during the "High Modernist" period have failed to do so.

The social engenieed approach to modernized urbanizations and economies by the "laizer fer", where the decition making lays down on to few people in charge (state and planners) implementing their ideas, which does not contemplate the completixy of reality and can become (dis)topia for the users that don't have the same ideals, which can be represented in the book of Orwell "Animal farm" or "1984".

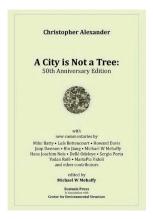
Scott argues that Social planners obsesions on addressing social issues as a God like outsider. This intellectuals and state officials they used simple models of reality to make society aprear understandable enough to be organized by the intentions of a single thinker but the very essence of society is its daily creation and tranformation.

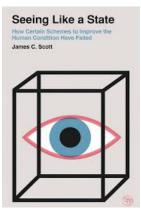
Apart from the top-down methods the necesity for clarity in the scheme led to separation of functions into monofunctional areas boosted and connected by highways that connected all the areas. Later on, we have seen that this model has failed as well as the tree structures.

Moreover, C. Alexander after participating in the CIAM and involved in the Team X, in the publication "the city is not a tree" he points out the failure of hierarchical structures whitin the systems, seems an alegory to the metaphor "tree is a leaf" exposed by Aldo van Eyck, that often was misused during the developments of the Welfare State in forms of clusters, culs de sac and tree structures.

However, from my perspective they where both pointing out the same issue here, the relationships generated between elements or patterns (A Pattern Language, 1977) is what is interesting as a way to understand how the built and non built environment is used and behaves through the use and transformations by the inhabitants.

Other critiques: A. Rossi, R. Venturi & D. Scott Brown, R. Koolhass, A. Jacobs, J. Gehl, etc.





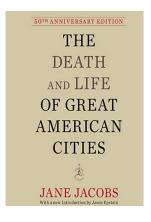
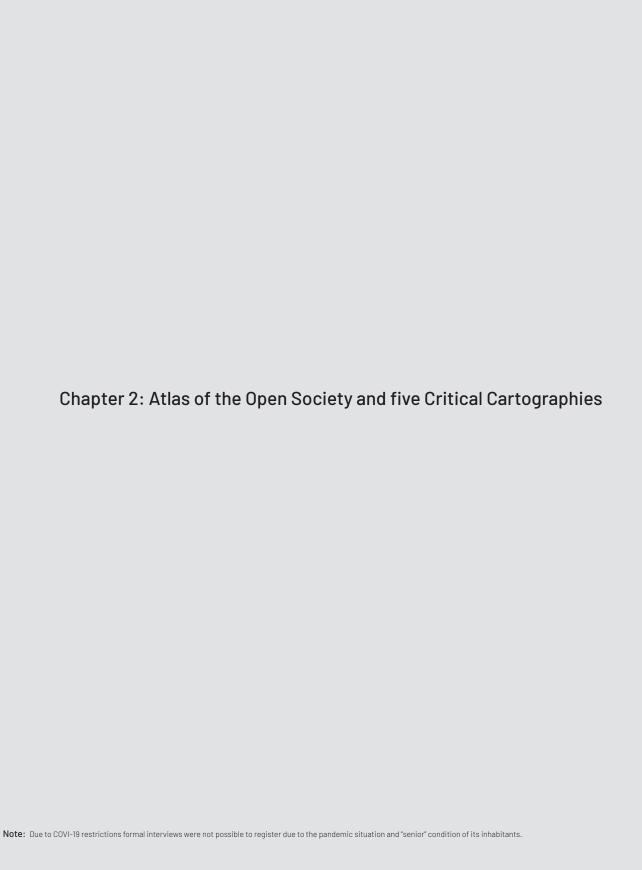


FIG. 1.57 Covers publications of the critiques selected Source: www.amazon.com

Part I

Theoretical and empirical revision concept of Open Society



Atlas of the Open Society

and its five critical cartographies.

What is an Atlas?

"The noun atlas meaning a book of maps was first used in English in the first half of the 17th century. The word comes from the name of one of the ancient Greek gods known as the Titans. Atlas was believed to hold up the heavens and was portrayed doing this in early collections of maps." (McMillian blog)

Atlas: A book containing maps showing where particular things are made, found, etc. (Cambridge dictionary)

"Buy an atlas and keep it by the bed - remember you can go anywhere." Joanna Lumley.

What is a Critical Cartography?

"Critical Cartography is a set of mapping practices and methods of analysis grounded in critical theory, specifically the thesis that maps reflect and perpetuate relations of power, typically in favor of a society's dominant group." (Harley, J. B, 1992).

Critical: giving opinions or judgments on books, plays, films, etc. (Cambridge dictionary)

Cartography: the science or art of making or drawing maps. (Cambridge dictionary)

"Maps are never value-free images" J. B. Harley

"Maps anticipated empire." J. B. Harley

*Notes:

*Scope:

All the analysis and test mentioned in the methodology are located in the PartIII-Appendix (cartographies)

This study has been carried out from a current view of 2021 on the concept of Open Society (64 principles) introduced in the 1960s and the projects carried out (Welfare State and internationalization process) that showed strong social and experimental wills. Due to the short time, the study area focuses only on the project and immediate context (1,5km x 1,5km), although a broader study could be done and include the territory. In addition to the exhaustive study of the proposals in their time and the current situation, the transformations and improvements that have occurred in this time gap are also considered.

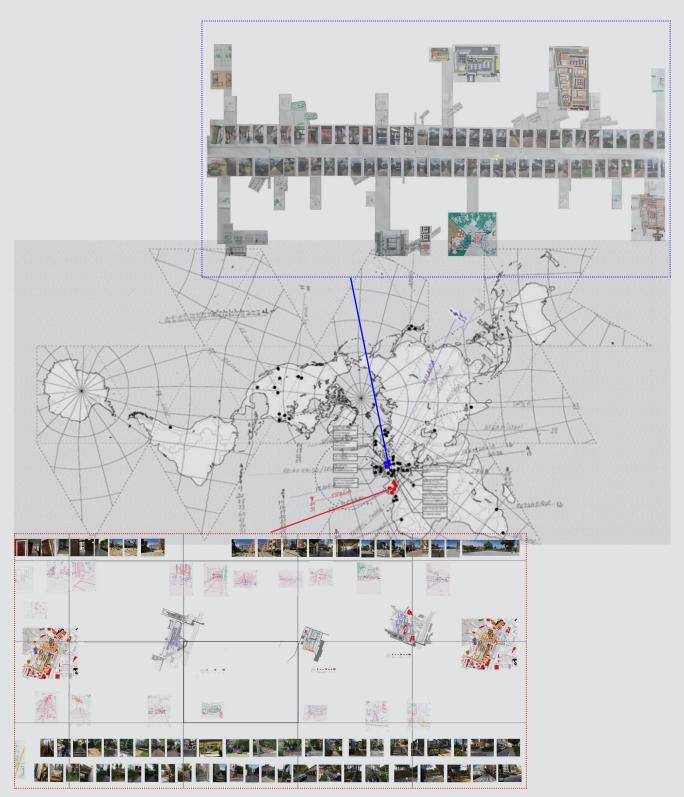


FIG. 1.58 Atlas of the Open Society ('t Hool and Montbau) Source: Made by author, data source:

History and Events

Introduction:

In the historical framework, we find two cities (Barcelona and Eindhoven) that experience migratory flows due to their industrialization and modernization. These case studies were at the time an example of innovation, experimentation, will and social commitment of the actors involved.

It should be said that the urbanization methods of that time were guided by the modern "tabula rasa" and there were no policies for the historical protection of the territory (Belvedere Memorandum), even so, we detected sensitivity and respect towards the pre-existing.

The political frameworks, of the Netherlands and Spain, where the two study sites ('t Hool and Montbau) are located during the 1960s were very different. On the contrary, at present, the political context of these is under a common framework of democratic policies (EU) that adjust to local specificities.

Methods:

In the Critical Cartography of History and Events, we have contrasted both qualitative and quantitative information on the projects at their inception and today. To achieve this, we have used several methods that analyze the transformation process in the territory or palimpsest, its relationship with it, its history: the conception of the project, its implementation, process and final result.

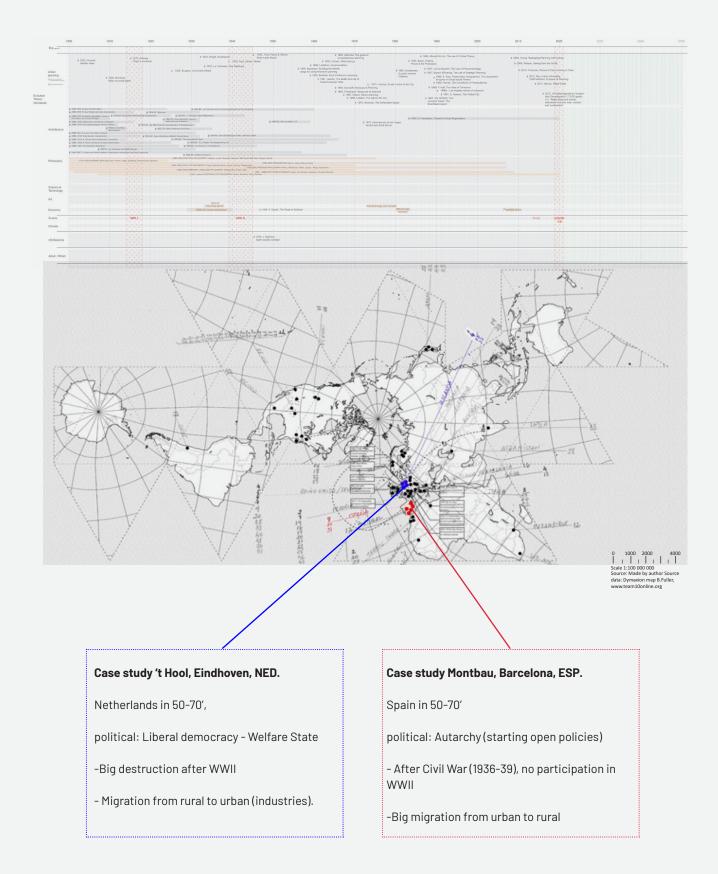
For this, we have used the palimpsest (Corboz, 1983; Vigano, 2010) reading method to be able to see which are the different processes that have taken place in the territory and visualize them graphically. So we can see these processes, study them and analyze them over time. In addition, the urbanization processes were "bottom-up" or "Top-down", in this way we will see how the project was managed and how it was worked from the governance. Faludi's "Performance vs Conformance" method will allow us to see if the project was understood as a process or if it was an executed design that would be what we know as a "blueprint".

*Notes:

*Scope:

All the analysis and test mentioned in the methodology are located in the PartIII-Appendix (cartographies)

This study has been carried out from a current view of 2021 on the concept of Open Society (64 principles) introduced in the 1960s and the projects carried out (Welfare State and internationalization process) that showed strong social and experimental wills. Due to the short time, the study area focuses only on the project and immediate context (1,5km x 1,5km), although a broader study could be done and include the territory. In addition to the exhaustive study of the proposals in their time and the current situation, the transformations and improvements that have occurred in this time gap are also considered.



Visual sequence "From Chair to City"

City to chair sequence (A) in 't Hool, Eindhoven, NED.



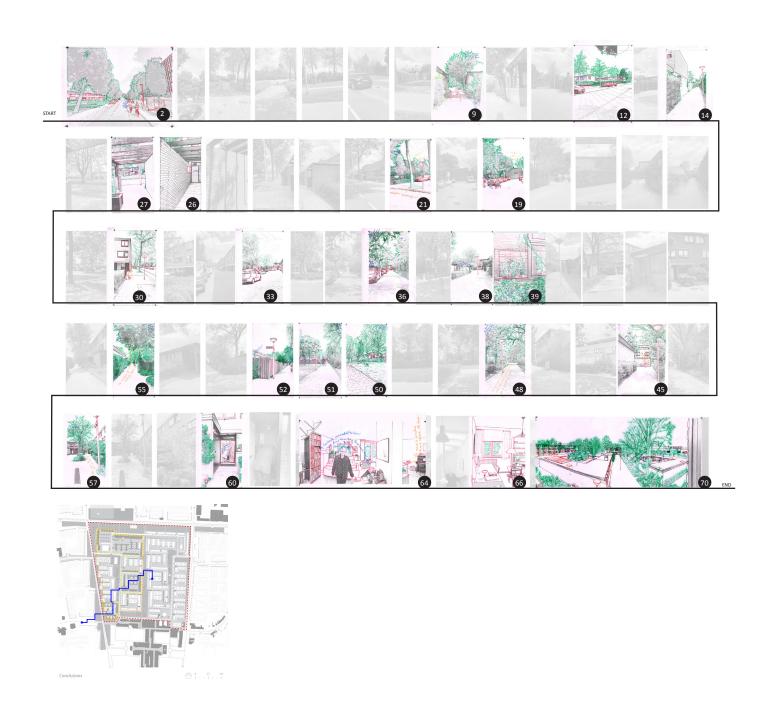
Chair to city sequence (B) in 't Hool, Eindhoven, NED.





Points of atmospheric intensity

City to chair sequence (A) in 't Hool, Eindhoven, NED.



Chair to city sequence (B) in 't Hool, Eindhoven, NED.





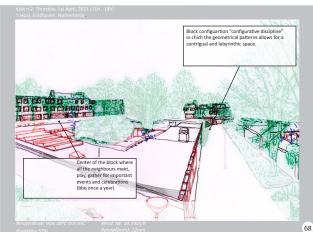
Memory and atmospheres

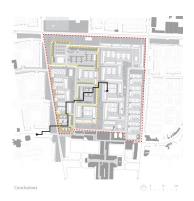
City to chair sequence (A) in 't Hool, Eindhoven, NED.

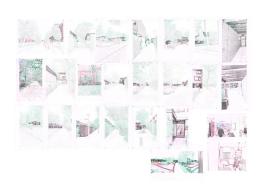








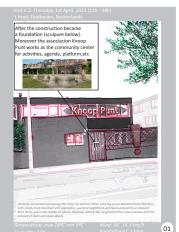




Chair to city sequence (B) in 't Hool, Eindhoven, NED.







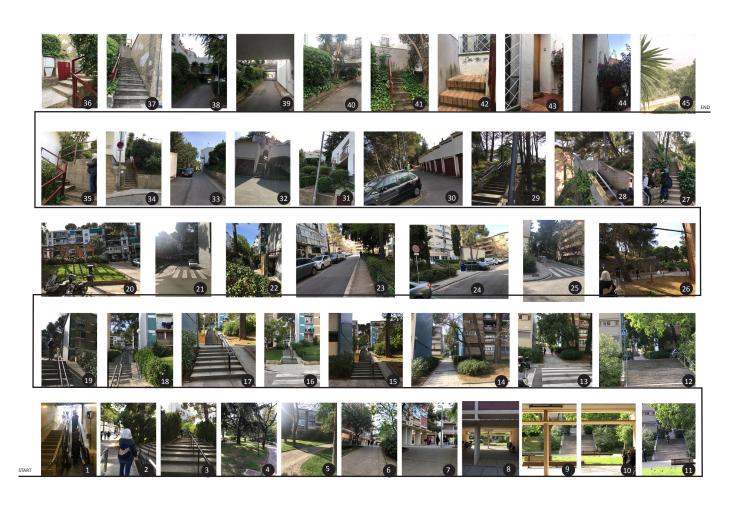






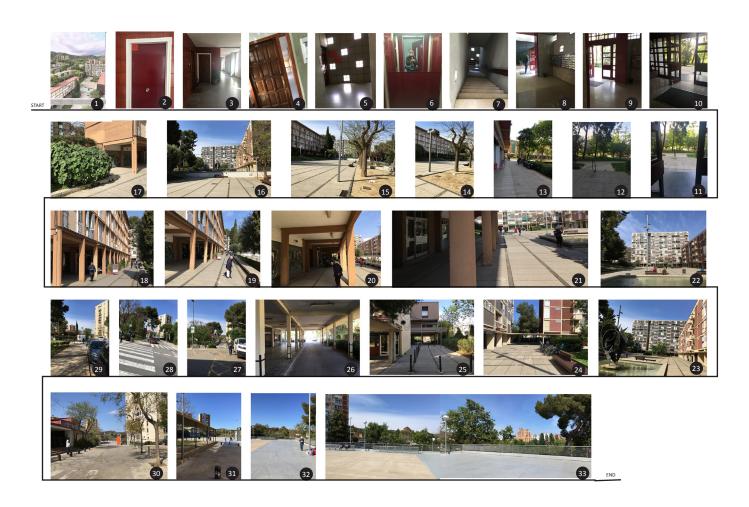
Visual sequence "From Chair to City"

City to chair sequence (A) in Montbau, Barcelona, ESP.





Chair to city sequence (B) in Montbau, Barcelona, ESP.





Points of atmospheric intensity

City to chair sequence (A) in Montbau, Barcelona, ESP.





Chair to city sequence (B) in Montbau, Barcelona, ESP.



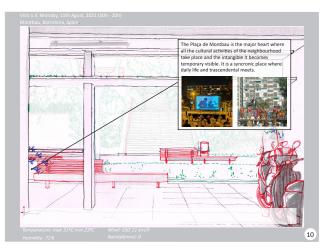


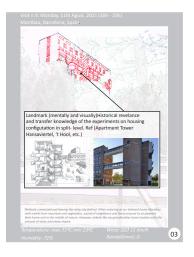
Memory and atmosphere

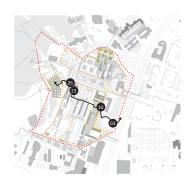
City to chair sequence (A) in Montbau, Barcelona, ESP.

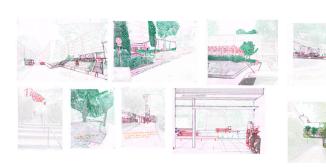






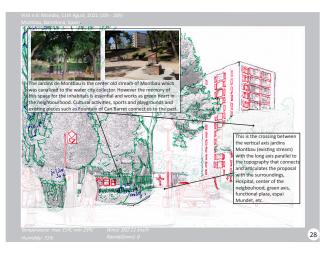


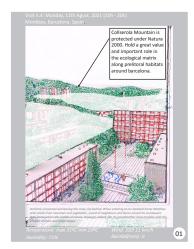


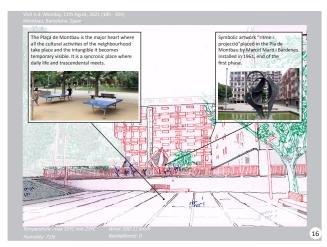


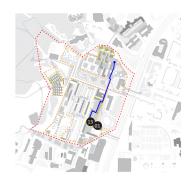
Chair to city sequence (B) in Montbau, Barcelona, ESP.

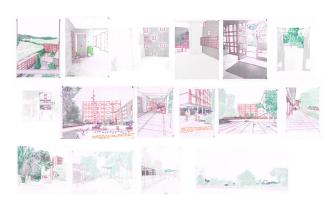












History catalogue

Case study 't Hool, Eindhoven, NED.











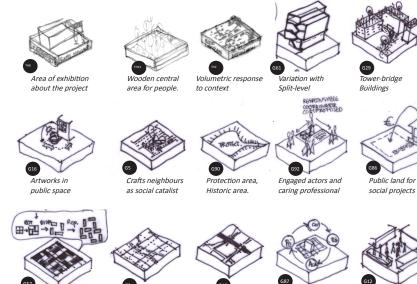








FIG. 1.59 Map of Critical Cartography of History Source: made by author



Continuity

existing networks

Public-Private (civic and

academy alliances)

Sequence areas for

FIG. 1.60 Small catalogue of History Source: made by author

Rotation

configuation

Urban and

ecological matrix

Case study Montbau, Barcelona, ESP.





















FIG. 1.61 Map of Critical Cartography of History Source: made by author



Rotation configuation







Wooden central area for people.

caring professional





from past and DNA



Crafts neighbours

as social catalist



Central plaza

Montbau

Structure cultural



Landscape park past and DNA



Extra budget for

experiemntation in

7% developments

experiemntation in

7% developments

Extra budget for

Public-Private (civic and

academy alliances)



Public land for social projects

FIG. 1.62 Small catalogue of History Source: made by author

reports on possible

future users

Cartography History

Case study 't Hool, Eindhoven, NED.

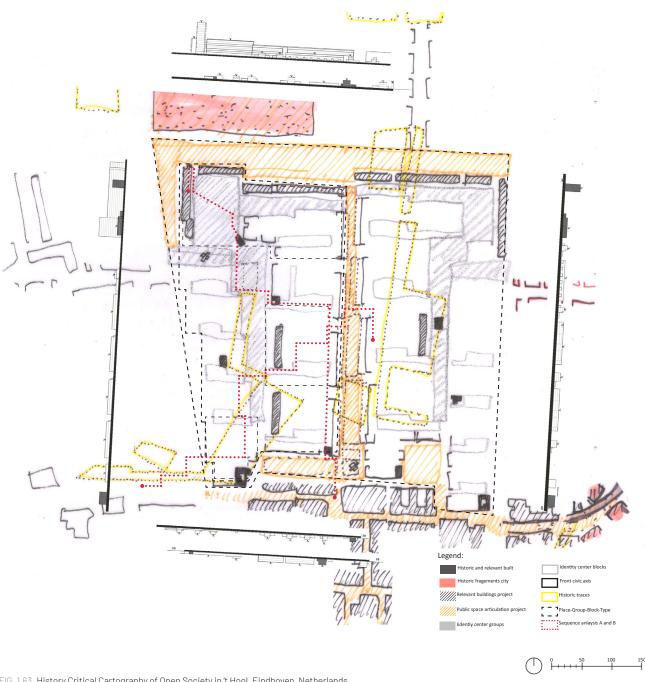
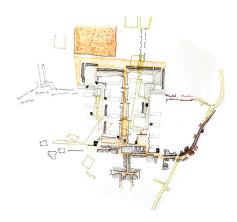


FIG. 1.63 History Critical Cartography of Open Society in 't Hool, Eindhoven, Netherlands. Source: made by author. Data source: historical plans (ref.), pdok platform (2021),

Case study Montbau, Barcelona, ESP.



FIG. 1.64 History Critical Cartography of Open Society in Montbau, Barcelona, Spain. Source: made by author. Data source: historical plans (ref), icc platform (2021),



't Hool:

Section (A) Control (A) Contro

Case study 't Hool, Eindhoven, NED.

Principles vs empiric results comparison (success / neutral / failures):

7.- At least 5% of the urban developments should be for experimentation for increasing knowledge (NUA-habili)

11.-In arranging groups of dwelling, do not fell trees, do not demolish useful building and, if possible, use existing nature with its height difference, etc. (NUA-hab III)(

(NUA hablil) 33- Occupant participation in the design methodology, so that wider circle is involved in deciding on the king of living environment needed

(I) 47.-Do we still make plans that respect space or do we treat space violently and aggressively? Think of the only flower in "The Little Prince" (de Saint-Exupéry)

(I) 59.-The present and past is a time of production and exploitation. It was preceded by the medieval city of religion and defence. The built signs of it are still clearly visible to us in our cities with, successively, medieval steeples, remnants of ramparts.

(CR-JJ)61-More important than increase in this knowledge, it appears to me, is a recognition of the architect-in.everybody)

40.- Permanent experimental neighbourhood in everyregion (5% extra budget for annual of total state construction volume in the form of experimental construction.

64.-This means that the task of determining space is one-sided and concentrated too much in the hands of specialists: of architects (allied to development companies in greater or lesser degrees) who, however, will never be able to know what all those types of spaces should be like in the imminent total urbanization for increasing conscious people (increasing numbers of students at universities: improvement of primary + secondary education. Roberts Frost: "everybody is born free and equal, free at least in his right to be different"...

Conclusions:

 $\label{thm:lighted} \mbox{High engagement with the client-user cooperative in the decision-making process.}$

Willingness to experiment and innovate complicity professional-client (cooperative) with a new model of living in a collective way (solidarity experienced by clients during WWII)

Willingness to articulate the fragmented pieces of the existing heritage into the proposal, counting with trees, topography, buildings, old structures, etc.

Cooperative Huis-en-Wijk initiator and complicity with Public institutions and professional to create a symbol for Woensel.



Montbau:

Contrasting with empiric results



Case study Montbau, Barcelona, ESP.

Principles vs empiric results comparison (success / neutral / failures):

11.- At least 5% of the urban developments should be for experimentation for increasing knowledge (NUA-habili)

11.-In arranging groups of dwelling, do not fell trees, do not demolish useful building and, if possible, use existing nature with its height difference, etc. (NUA-hab III)(

(NUA habiii) 33- Occupant participation in the design methodology, so that wider circle is involved in deciding on the king of living environment needed

(I) 47.-Do we still make plans that respect space or do we treat space violently and aggressively? Think of the only flower in "The Little Prince" (de Saint-Exupéry)

(I) 59.-The present and past is a time of production and exploitation. It was preceded by the medieval city of religion and defence. The built signs of it are still clearly visible to us in our cities with, successively, medieval steeples, remnants of ramparts.

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Conclusions:

High engagement with users (interviews) and specially with the cooperatives that built the buildings and other pieces of crafts in the neighbourhood.

Willingness to innovate complicity professional-client (Public institution) with a new urban model in Bcn, sociological approach, etc)

Willingness to articulate the fragmented pieces of the existing heritage into the proposal, counting with trees, topography, buildings, old structures, etc.

Patronat d'habitatge is the initiator and increases the budget to bring new ideas, sociological experiments.

Differences and similarities

History, events and culture ('t Hool-Montbau):

Similarities:

- -In both cases, the proposals were carefully fitted in each of the places, and they tried to articulate the existing axes with the proposed ones.
- -Users were part of the process, at different levels. In 't Hool they participate during the whole decision making process and in Montbau during the construction phase, where they got involved in form of cooperatives of construction.
- -The professionals we have studied in these cases (Bakema and LIGS) show critical thinking (to a greater or lesser degree), but above all a willingness to propose something better and great professionalism at work.
- -In both cases we can see a great enthusiasm and desire for experimentation and innovation of the clients to promote innovative projects with respect to the existing models, these being aware and taking charge of the direction that the project is going to take (budget, uncertainties such as design changes in the process, etc).
- -Also, in both cases we found that the commitment of these professionals towards society and towards promoting habitability was a firm commitment.
- The two proposals increased the number of homes, in the case of Montbau it was achieved by increasing the density and in 't Hool, due to the vast extension assigned to build, the number of homes was doubled, maintaining the same density.
- The two projects were motivated to react to the lack of housing in each city, due to the emigration processes to these cities and the phenomenon of industrialization and modernization, more job offer, better habitability and better conditions to flourish.

Differences:

- The result of the proposal processes are different. The approach that was made in Montbau is top-down and the one that was made in t'Hool was from the bottom-up
- The 't Hool proposal began from a private initiative linked to the needs and desires of some individuals (bottom-up) while in Montbau it was promoted from a public entity (Patronat d'habitatge, under a framework of private incentives)
- -The location site of Montbau was selected since the beginning, on the contrary, 't Hool began to be designed without context and later, through public alliances, a relevant and central site was found. Therefore, it became a symbol of experimentation and the center of the whole new development of Woensel District.

*Scope:

This study has been carried out from a current view of 2021 on the concept of Open Society (64 principles) introduced in the 1960s and the projects carried out (Welfare State and internationalization process) that showed strong social and experimental wills. Due to the short time, the study area focuses only on the project and immediate context (1,5x1,5 Km), although a broader study could be done and include the territory. In addition to the exhaustive study of the proposals in their time and the current situation, the transformations and improvements that have occurred in this time gap are also considered.

- In 't Hool, Bakema deals directly with its user-clients to adapt their needs to the proposal, while in Montbau, since the Public Administration is the client, the LIGS architecture team relies on studies (interviews, etc.) that they study the types of users to whom the action is directed.
- -In reference to the demand for housing in Eindohoven it was not only due to a migratory phenomenon, but Eindhoven was also affected by the destruction caused during the Second World War, which did not affect so extensively in Barcelona, after the civil war the autarky was established and with this political context some punctual damage caused by bombing the city occurred but not the size or caliber of the damages of dutch cities during WWII.

Conclusions and urgencies

Hystory events and culture ('t Hool-Montbau):

The proposals were developed in different years (19... and 19...) and different political contexts (autarchy and liberal democracy). However, today both proposals share the same framework, and both have a relevant historical value in both cities, as examples of the modern project as an attempt to promote innovative urban models to improve the liveability of the citizens and promote an Open Society.

The time frame of this chapter encompasses and studies the initial process of these developments of the proposals and not the later updates done until today. For this reason, the information studied in this chapter is mostly from the beginning of the project. Due to time constraints, it has not been possible to go deeper, but it would be important to study the different neighbourhood updates until today.

After the historical study of the proposals, it is observed that both arise as a reaction to the housing shortage and increase of population in the cities studied, due to a migratory phenomena within the country.

It is clear that the solutions and approaches to shorten the gap between housing supply and demand were completely opposite. In 't Hool it was from a private initiative (Huis en Wijk cooperative) and in Montbau, although under a private incentive framework, it was promoted by the public administration (Patronat d'habitatge).

As we can see in the process of urbanization, public institutions have a certain advantage since in Montbau the site was assigned since the beginning while 't Hool it takes a while to find a location agreed with the public administration, which causes the modification in the project in its extension and number of dwellings. We could say that the alliances generated in 't Hool to experiment and provide a relevant location are very enriching and that in Montbau the role of the Patronat as a public entity that invests in experimentation is of great value. We could say that points 7 and 40 would be fulfilled with their willingness to experiment.

In the case of Montbau, the unjustified use of urban planning tools (POUM) in favor of economic viability shows the possible easy manipulation and alteration of urban projects. This planning instruments have to guarantee certain degree of flexibility in the prescriptions made and laws, that will allow for a better application depending the conditionants of the place, context and change overtime. However, there's always whoever that will use these instruments for a purely economic benefit. I believe that these loopholes will always be there but the conditionants or mechanism to change those regulations have to be motivated from a very ethical purpose.

It must be said that the professionals show in these two cases a high responsibility and professionalism with respect to the quality of the proposals and their impact on the habitability of the proposal in order to satisfy the requirements for living of the users. The insertion of both proposals in the place can be seen that the location and its conditioning factors have been understood, in addition to the will to articulate

*Scope:

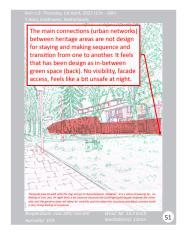
This study has been carried out from a current view of 2021 on the concept of Open Society (64 principles) introduced in the 1960s and the projects carried out (Welfare State and internationalization process) that showed strong social and experimental wills. Due to the short time, the study area focuses only on the project and immediate context (1,5x1,5 Km), although a broader study could be done and include the territory. In addition to the exhaustive study of the proposals in their time and the current situation, the transformations and improvements that have occurred in this time gap are also considered.

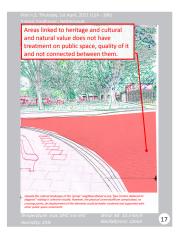
and connect the existing pieces and realities with the new proposals. This gives us positive results from points 11, 47, 59.

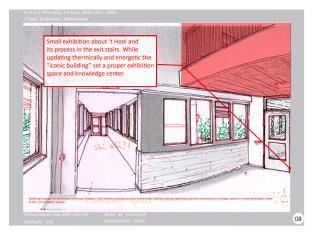
In the analysis of the urban development process (during the 1960s) we have been able to conclude that both have a desire to improve habitability, but the approach of the process is different. Both cases include users at some point throughout the development process. At 't Hool, users (clients) are always present throughout the process and their involvement makes it more consistent. While in Montbau we only see the participation of future users in the construction phase by participating in the form of construction cooperatives and others. It is interesting to consider that users must be involved both in the decision-making process and in the process of construction and creation of the proposals in order to allow them to appropriate the place, not only from an anthropological point of view (Scott) but also from a political point of view. this allows them to exercise their right to use and transform the city with their actions, in other words, exercise their right to the city (Lefebvre, 1968).

Urgencies detected

Case study 't Hool, Eindhoven, NED.







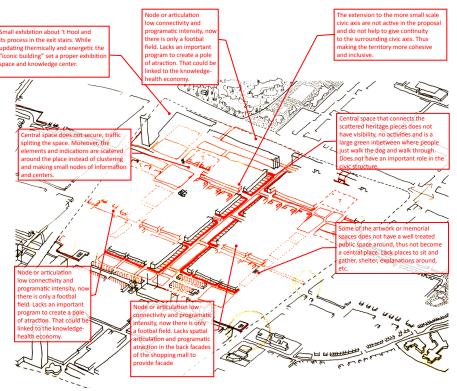
Urgencies:

Inactivated axis north-south and lack of program in nodes and crossings.

Emphasised the "nodes" with heritage value with better urban conditions and elements and quality public space.

Embrace history, local and community heritage and create knowledge centres around this areas.

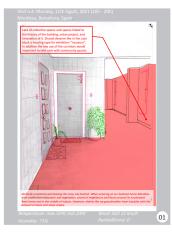
Improve quality treatment of the

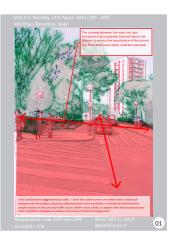


 ${\sf FIG.\,1.65}\,$ Axonometric of the urgencies detected in the case study in 't Hool Source: Made by author

Case study Montbau, Barcelona, ESP.



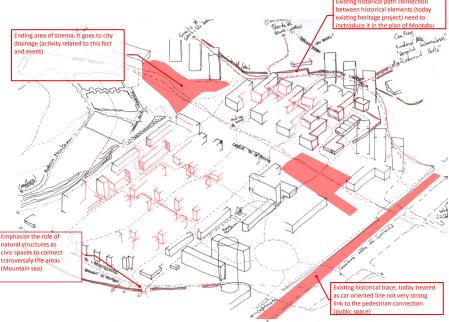




Urgencies:

Barriers on east west south to better link to the context and surroundings more in a "natural way- water paths" as in the past.

Emphasised the "nodes" with heritage value with better urban conditions and communication devices and supported with education centres.



 ${\sf FIG.\,1.66}\,$ Axonometric of the urgencies detected in the case study in 't Hool Source: Made by author

Geography

Introduction:

The industrialization and modernization of cities, (their peripheries and suburbs), have been one of the several main agents of transformation of the territory. These processes and models have generated a large increase in the consumption of natural resources and a decrease in the presence of the natural system in our territory. The increase in built area and expansion of the city-region makes us pose serious environmental problems (loss of biodiversity, contamination of biotic elements, decrease in natural habitats, etc.) and energy problems that are tried to control with global, national policies, regional and local. (Green Deal, SDG, UN among others, reaching the CTE). In both case studies, there are ecological improvement projects (public or community) under a framework of local policies and guidelines.

It should be said that the concepts of Ecology and Sustainability were not discussed in the 60s, and of course not as widely disseminated as today. Perhaps because the great environmental movement that was spawned in the 1960s did not reach a large audience until years later. Today everyone is aware of the impact of human beings on the planet, what today we call "ecological footprint".

In addition, the great social and housing urgency of the 1960s was so great that the efforts of then were directed to control the known and existing needs at that time. These projects were based more on a desire for social improvement and an attempt to accommodate the large masses of the population dragged by migration and to control the need for access to housing with a minimum of habitability.

Despite this great social effort, in the case studies a certain sensitivity to the place or landscape is already detected and how to generate little impact on it as did vernacular architecture, appealing to the use of passive energy strategies and even some hint more referring to environmental health, understood as health of the natural environment. We will analyze how this urban development was worked in relation to the sensitivity of the landscape in order to understand its logic and be able to adapt it a posteriori to today's environmental and ecological emergencies.

Methods:

They were not ecologically worked projects, since, as we have said at that time, there was not this great need and environmental awareness as we currently have it, something that would have to be incorporated, and that is why Geography cartography is introduced.

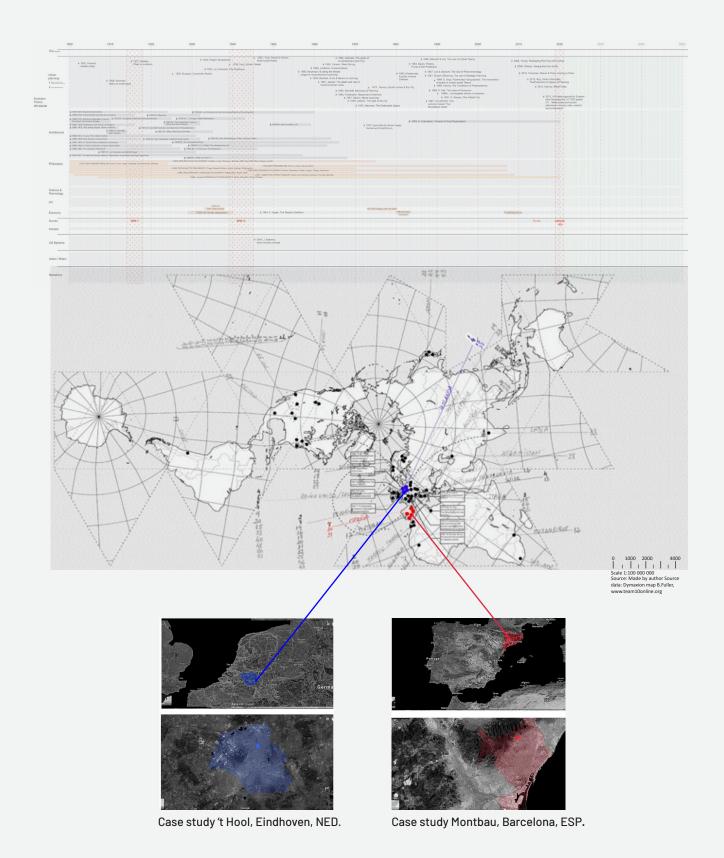
The working methods are based on: Cataloguing of habitats; Climate Analysis; Topography, water and subsoil; Types of uses, function and property.

*Scope:

This study has been carried out from a current view of 2021 on the concept of Open Society (64 principles) introduced in the 1960s and the projects carried out (Welfare State and internationalization process) that showed strong social and experimental wills. Due to the short time, the study area focuses only on the project and immediate context (1,5kmx1,5km), although a broader study could be done and include the territory. In addition to the exhaustive study of the proposals in their time and the current situation, the transformations and improvements that have occurred in this time gap are also considered.

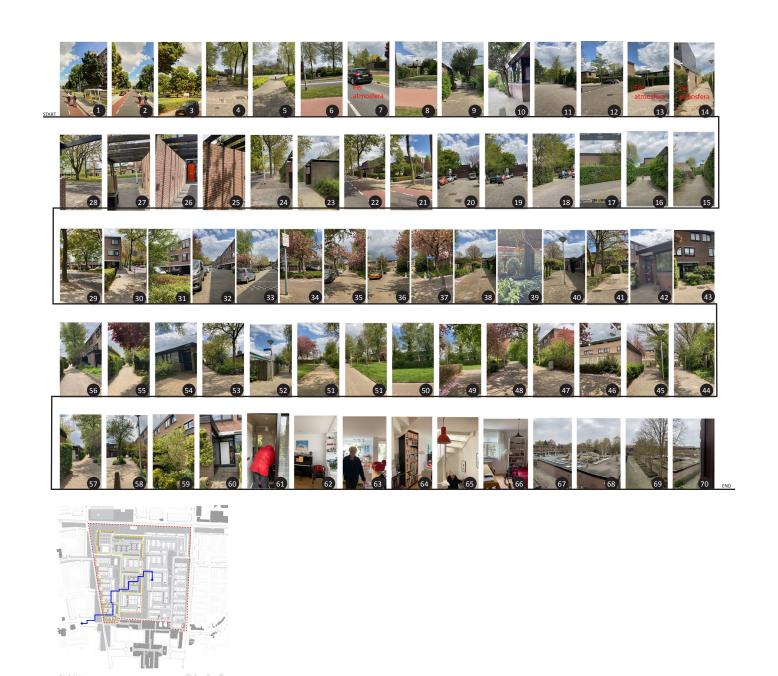
*Notes:

All the analysis and test mentioned in the methodology are located in the PartIII-Appendix (cartographies)



Visual sequence "From Chair to City"

City to chair sequence in 't Hool, Eindhoven, NED.



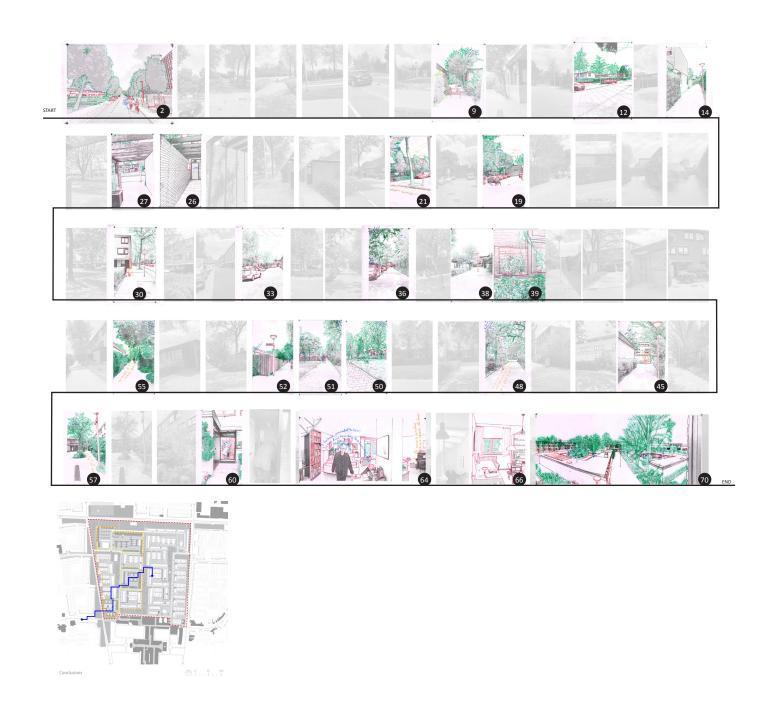
Chair to city sequence in 't Hool, Eindhoven, NED.





Points of atmospheric intensity

City to chair sequence in 't Hool, Eindhoven, NED.



Chair to city sequence in 't Hool, Eindhoven, NED.



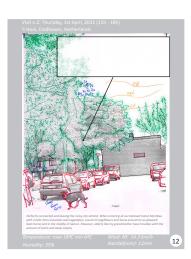


Landscape and atmospheres

City to chair sequence in 't Hool, Eindhoven, NED.













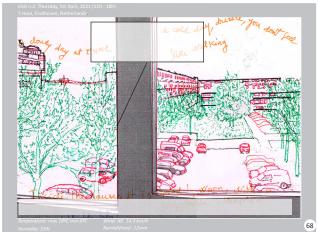


Chair to city sequence in 't Hool, Eindhoven, NED.

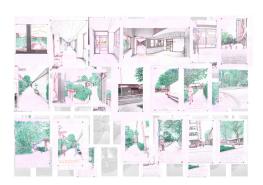






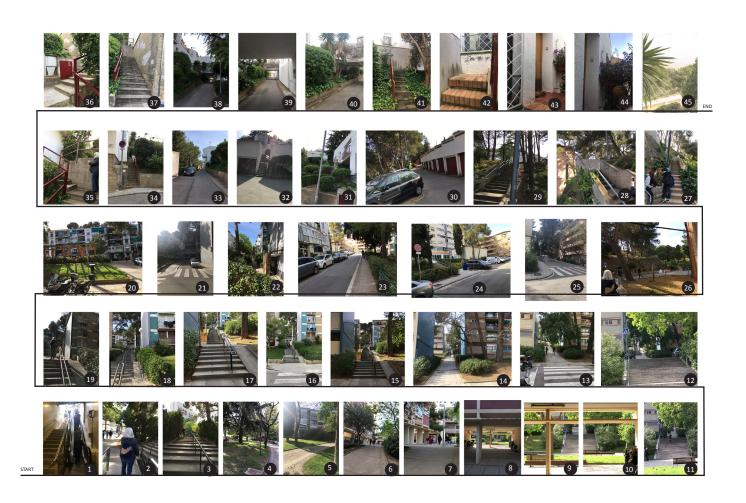






Visual sequence "From Chair to City"

City to chair sequence (A) in Montbau, Barcelona, ESP.





Chair to city sequence (B) in Montbau, Barcelona, ESP.





Points of atmospheric intensity

City to chair sequence (A) in Montbau, Barcelona, ESP.





Chair to city sequence (B) in Montbau, Barcelona, ESP.





Landscape and Atmosphere

City to chair sequence (A) in Montbau, Barcelona, ESP.

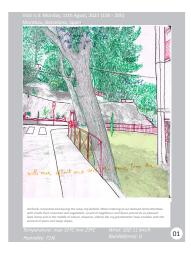










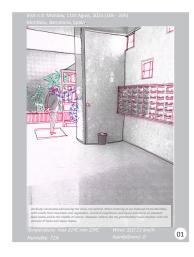






Chair to city sequence (B) in Montbau, Barcelona, ESP.

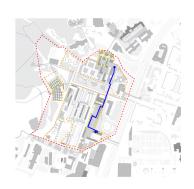


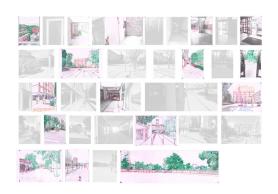












Geography catalogue

Case study 't Hool, Eindhoven, NED.



















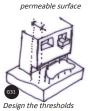










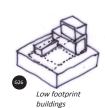














climatic consideration



Collaboration with experts (Landscape designer)

FIG. 1.67 Map of Critical Cartography of History Source: made by author

FIG. 1.68 Small catalogue of Geography Source: made by author

Case study Montbau, Barcelona, ESP.



























Respect natural structures and protected areas







Design the thresholds Utilizing topography intelligently, and working between in-out taking climatic consideration



FIG. 1.70 Map of Critical Cartography of History Source: made by author



Urban metabolism, permeable surface



Diversity of green and scales



Large wooden central area for people.



Connecting subsurface with surface



Volumetric landscaping in relation scale and climate (sun, wind, etc)



Natural axis as civic space and structurant develp.



Natural way to descent topography in Zig-Zag



Activitiy areas and civic spaces along natural axis.

FIG. 1.69 Small catalogue of Geography Source: made by author

Cartography Geography

Case study 't Hool, Eindhoven, NED.



FIG. 1.71 Geography Critical Cartography of Open Society in 't Hool, Eindhoven, Netherlands. Source: made by author. Data source: historical plans (ref.), pdok platform (2021),

Case study Montbau, Barcelona, ESP.



FIG. 1.72 Geography Critical Cartography of Open Society in Montbau, Barcelona, Spain. Source: made by author. Data source: historical plans (ref), icc platform (2021),



't Hool:

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Case study 't Hool, Eindhoven, NED.

Principles vs empiric results comparison (success / neutral / failures):

4.-Orientation possibilities within the urban composition from small to large and vice versa (the location of high- and low.rise buildings and public amenities)

(A) 3.-Simultaneous contact with both urban space and landscape.

11.-In arranging groups of dwelling, do not fell trees, do not demolish useful building and, if possible, use existing nature with its height difference, etc. (NUA-hab III)(

C) 12.-Create wooded areas on disused agricultural land, so that in 20 years' time they can become important wooded residential areas.

56.-In order to cope with the imminent complete urbanization, we need new relationships between what is public and what is private. Space will increasingly have to be maintained publically. Land is no longer something to want to possess. How is that possible? For what about the space above it? (NUA-hab III)

Conclusion:

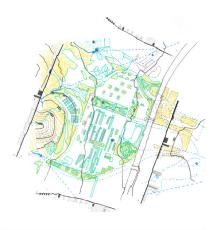
In 't Hool we can see a good understanding of the geographical context, orientation, topography, etc. However, does not protect all the existing natural structures existing in the site.

Is a willingness to create social forestry in existing green areas as "in-between" spaces. High level of contact urban-landscape space.

Landscape project since the beginning. High diversity of green types-size-property, not in the renting area of the neighbourhood.

Large amount of monocropping green fields, no ecological concern. Nowadays, there is a project concerning ecological concerns.

Not taken in consideration the subsurface space for ecological suitability



Montbau:

Contrasting with empiric result



Case study Montbau, Barcelona, ESP.

Principles vs empiric results comparison (success / neutral / failures):

4.-Orientation possibilities within the urban composition from small to large and vice versa (the location of high- and low.rise buildings and public amenities)

(A) 3.-Simultaneous contact with both urban space and landscape.

11.-In arranging groups of dwelling, do not fell trees, do not demolish useful building and, if possible, use existing nature with its height difference, etc. (NUA-hab III)

C)12.-Create wooded areas on disused agricultural land, so that in 20 years' time they can become important wooded residential areas.

56.-In order to cope with the imminent complete urbanization, we need new relationships between what is public and what is private. Space will increasingly have to be maintained publically. Land is no longer something to want to possess. How is that possible? For what about the space above it? (NUA-hab III)

Conclusion:

In Montbau we can see a good understanding of the geographical context, orientation, topography, etc. And a mixed feelings about protecting natural heritage and ecological structures, Problems created in later phases for economic matters.

Creation social forestry in existing green areas as "in-between" spaces. High level of contact urban-landscape space and specially with the large ecological corridor of the Collserola. (Ecotone location)

High diversity of green types but medium-low level of size-property. It is largely public and it has a great advantage to be in contact to Collserola..

Large amount of monocropping green fields, no ecological concern. Nowadays, Landscape projects on going with ecological concern.

Not taken in consideration the subsurface space for ecological suitability

Differences and similarities

Geography ('t Hool-Montbau):

Similarities:

- The agents of transformation in both geographic locations were mainly due to industrialization and modernization, in relation to the openness politics. Today's agents are globalization, digitization and automation, climate, economic and social crisis in which technology plays a relevant role.
- In both cases, an ecological conscience like that of today is not shown. It is not strange since knowing that in the sixties the seed germinated with the publication of Silent Spring (1962) that made the great environmental movement that exists today flourish and leads the global consciousness about our planet and our future existence on it.
- The agents of transformation of these territories show that the modified surface is considerable, although not excessive in relation to other projects developed at this time. The surface transformed in Montbau is 32Ha and in 't Hool it is 30Ha.
- They accumulate a large open and permeable surface, with different owners. The functions or purposes of those spaces have been changed over time.
- Both use elements and green spaces to provide privacy and serve as a transition from public to private space. (Linked to the type of property and typology), as well as the typical in-between greenery between urbanized areas.

Differences:

- Both sites have different climatic conditions or weather. Montbau has a Mediterranean climate while 't Hool is continental oceanic with the characteristics of each location (temperature, humidity, rainfall, etc.)
- The orography, altitude and location of the sites are completely different. While 't Hool is located within the city of Eindhoven, in flat (plain) due to the condition of the country, low sea level) and with hardly any orographic changes, Montbau is located on the border of the city of Barcelona with the Collserola massif, on the eastern slope with an accentuated orography.
- Both the vegetation and the fauna respond in both cases to the different climatic contexts of the areas.
- The use of green axes to articulate urbanization pockets, although in Montbau, a posteriori, it has been used as a civic axis, in 't Hool it remains as a green axis without civic function.

*Scope:

This study has been carried out from a current view of 2021 on the concept of Open Society (64 principles) introduced in the 1960s and the projects carried out (Welfare State and internationalization process) that showed strong social and experimental wills. Due to the short time, the study area focuses only on the project and immediate context (1,5kmx1,5km), although a broader study could be done and include the territory. In addition to the exhaustive study of the proposals in their time and the current situation, the transformations and improvements that have occurred in this time gap are also considered.

- The Green respond to privacy strategies in 't Hool, by relating it with their scale (city, group, block and type) and it's a gradient and articulation following the geometric rotation of the blocks and the functioning as a element in the common-private domains as a transitory space reinforcing the thresholds created to mediate between the different realms (public, semi-public, community, block and unit). While in Montbau the vegetation is also used for privacy but it is basically concentrated in big public spaces (more city like)

Conclusions

Geography ('t Hool-Montbau):

Conclusions:

Modernity was a flourishing in individual emancipation, although it compromised and borne the consequences (to others) either by voluntary segregation through knowledge, zoning, excessive exploitation of resources and massive transformation of the natural environments close to cities and reaching late modernity to a critical situation because of Neoliberal policies.

These cases show wise lessons in understanding the place and the small unresolved issues that are worth explaining and analysing. As we have previously explained, these committed professionals did not display ecological awareness, perhaps because the great environmental movement we see and live today, it began in 1962 with the publication of Silent Spring and Ian Mc Harg's 1969 publication "Design with Nature" points to a new way of like programming landscapes and regions with a more ecological perspective, but it was in an incipient phase.

Although these modern rationalists and functionalists did not understand the built environment as a living organism (Mumford), Geddes explained its relationship with the context that resulted in the famous regionalist section that the Team X group later worked and studied on it. Even so, we can observe in the almost primary logic of placement of the proposal (inserted in the topography, the optimal orientation to obtain adequate lighting, cross ventilation, etc.) that is, they show sensitivity in the relationship between the urban and the landscape (dichotomy back then) and we could say that the use of some sustainable passive strategies (orientation, protection, cross ventilation, slopes or zig-zag to solve the topography, etc.) for that time resembles the resources and strategies of traditional or vernacular architecture. Result of points 4 and 11.

The appearance of "in-between" spaces as a result of the space between urbanized spaces, which normally materializes in green spaces that are used by neighbours and other users of the surrounding neighbourhoods. As we can see in Montbau, these green axes have subsequently been transformed into civic axes with sports, rest and congregation activities, with lush vegetation that allows the fauna (wild boar at night and other animals) of the coastal mountain range to descend through these areas functioning as an ecological and civic axis. Which gives us results from point 12, and it is an urgency to investigate.

In contact between urbanization, it is resolved through a concatenation of green spaces with different functions, depending on the scales, dimensions and purposes. It must be said that the maintenance of the large public green areas makes the public green space have a high quality, the communal areas look less cared for and the private areas of property-owned more cared for than the property-rental ones.

*Scope:

This study has been carried out from a current view of 2021 on the concept of Open Society (64 principles) introduced in the 1960s and the projects carried out (Welfare State and internationalization process) that showed strong social and experimental wills. Due to the short time, the study area focuses only on the project and immediate context (1,5kmx1,5km), although a broader study could be done and include the territory. In addition to the exhaustive study of the proposals in their time and the current situation, the transformations and improvements that have occurred in this time gap are also considered.

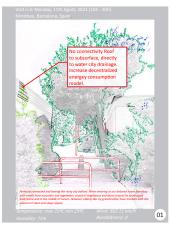
These community and private green areas are normally used as a transition space between the public or community with the private space of the house, providing permeability and porosity as a strategy to provide privacy while allowing interstitial spaces that make a transition between the outermost and the interior. In these interstitial spaces and thresholds, it has been detected that it is where life and heterotopia flour is h, in ways that coexist between the every day and the transcendental.In 't Hool there are symbols of many cultures, mandalas, ying-yang, etc. In the areas where daily life passes, entrance gardens with personalized flowerpots, crocheted curtains, bicycles, bird houses, flowers, trees with sentimental value, benches, and windows that open a hole to the personal life of users reminiscent of the literary adventures of G. Perec, Species of Spaces and G. Bachelard. In Montbau these spaces take place mostly at the entrances to the blocks and some outdoor spaces where the everyday combines with the transcendental, works of art and crafts, flowers and plants, hanging clothes, crochet curtains, etc. We have detected that there are areas where this atmospheric intensity is not detected and is related to the type of tenure or occupation (property or rent) in addition to the type of building.

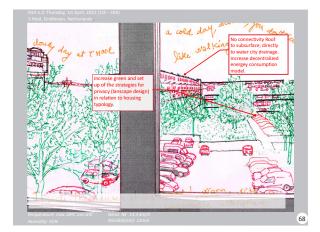
It is visible that more recent projects to improve the sustainable performance of the various photovoltaic panels, etc. have already been placed. The energy transition aspect is an important step to consider to look further in the proposals of this period.

Urgencies detected

Case study 't Hool, Eindhoven, NED.







Urgencies:

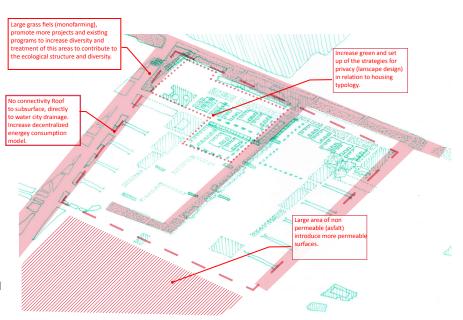
Lack of connectivity with the subsurface in the main axis (east, north, west and central)

Big surface parking in the south that needs to be addressed in future.

Increase amount of green and diversity in the blocks related to rental tenure.

No connectivity roof to subsurface (broken natural processes)

No collected and reuse rain water. Avoid mixing with drainage system of the city



 ${\sf FIG.1.73}\,$ Axonometric view of the urgencies detected in the topic of Geography Source: made by author.

Case study Montbau, Barcelona, ESP.







Urgencies:

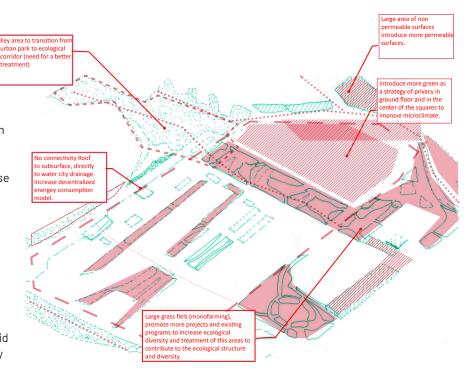
Lack of connectivity with subsurface in the main axis (three old streams)

No strong ecological continuity because of the highway.

Increase amount of diversity in types-sizes-property with in the neighbourhood.

No connectivity roof to subsurface (broken natural processes)

No collected and reuse rain water. Avoid mixing with drainage system of the city



 ${\sf FIG.\,1.74}\,$ Axonometric view of the urgencies detected in the topic of Geography Source: made by author.

Socioeconomics

Introduction:

This cartography explains the sociological experiments that were carried out in both case studies, 'Thool and Montbau. Due to migratory changes, among other factors, which have been mentioned previously, these projects carried out in the 1960s are being studied since the present time. As the wills for social improvement landed in new laws, policies and alliances to solve the shortage of housing and the ways of life that they offered. The case of 'T holl and Montbau are exceptional due to the desire for innovation and experimentation in the sociological field, providing the proposals with typological and social diversity. We find this today with policies that promote different percentages of urban developments focused on different profiles and social levels.

In addition to promoting public-private alliances and in some cases civic, providing diversity of property and use, and legal figures.

It should be reflected that today due to large migratory movements and globalization, the European paradigm has to be expanded to a global paradigm, (different cultures, beliefs, uses, values, etc.), to accommodate pluralism, and a in-depth study of the needs around the housing field to adapt existing models to new needs.

Method:

Sociological proposals are studied through the analysis of the methods, tools and processes used then, and their result is reflected on. The emergencies and proposals of that time are then compared with current and future emergencies.

In relation to the economy, the functions related to services, production and the models used are studied.

Taking into account the great change in the economy from then to today, (information, knowledge and services) the functional diversity of neighbourhoods is studied in relation to their scale.

Finally, a comparison is made with the current situation, which are the social and economic needs that exist in the neighbourhood and a general comparison of these data to determine what are the emergencies at the programmatic level and spatial implications.

*Scope:

This study has been carried out from a current view of 2021 on the concept of Open Society (64 principles) introduced in the 1960s and the projects carried out (Welfare State and internationalization process) that showed strong social and experimental wills. Due to the short time, the study area focuses only on the project and immediate context, although a broader study could be done and include the territory. In addition to the exhaustive study of the proposals in their time and the current situation, the transformations and improvements that have occurred in this time gap are also considered.

*Notes:

All the analysis and test mentioned in the methodology are located in the PartIII-Appendix (cartographies)



Visual sequence "From Chair to City"

City to chair sequence (A) in 't Hool, Eindhoven, NED.



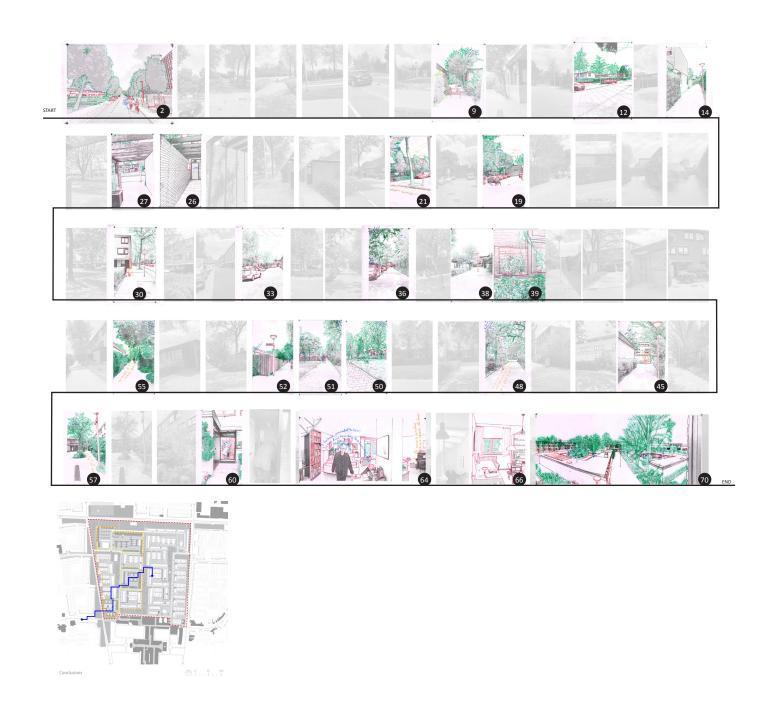
Chair to city sequence (B) in 't Hool, Eindhoven, NED.





Points of atmospheric intensity

City to chair sequence (A) in 't Hool, Eindhoven, NED.



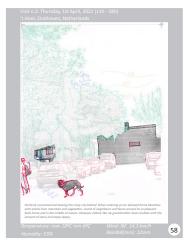
Chair to city sequence (B) in 't Hool, Eindhoven, NED.





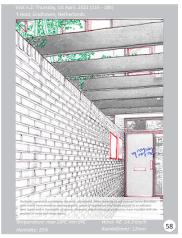
City and Atmospheres

City to chair sequence (A) in 't Hool, Eindhoven, NED.



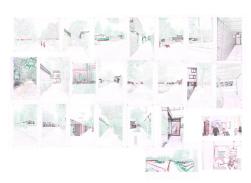








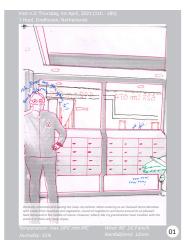




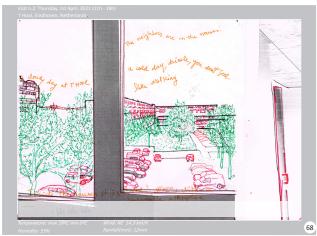
Chair to city sequence (B) in 't Hool, Eindhoven, NED.



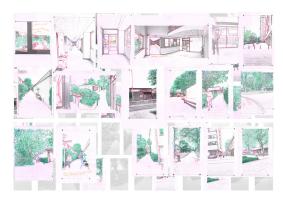






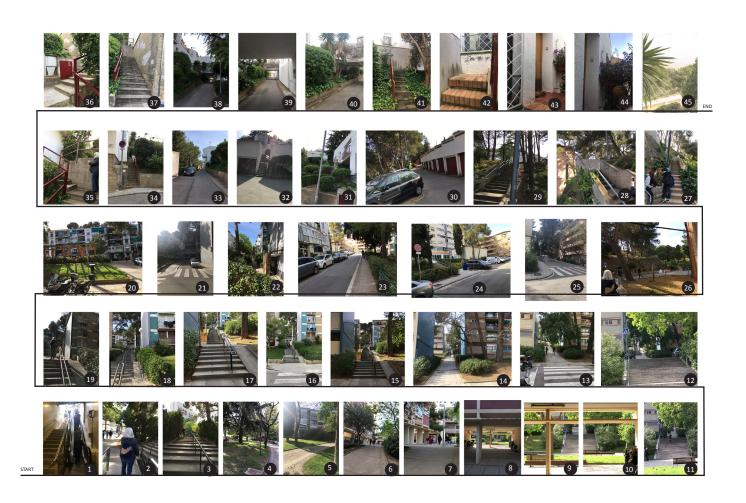






Visual sequence "From Chair to City"

City to chair sequence (A) in Montbau, Barcelona, ESP.





Chair to city sequence (B) in Montbau, Barcelona, ESP.





Points of atmospheric intensity

City to chair sequence in Montbau, Barcelona, ESP.





Chair to city in Montbau, Barcelona, ESP.





City and Atmosphere

City to chair sequence in Montbau, Barcelona, ESP.















Chair to city in Montbau, Barcelona, ESP.

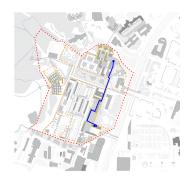














Socioeconomics catalogue

Case study 't Hool, Eindhoven, NED.





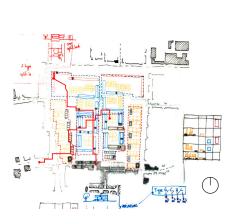


FIG. 1.75 Critical Cartography Socioeconomics Source: made by author











type-block-group-place

Diversity public space





within scales



Diversity by spatial variantions Split-level

Public-private alliances

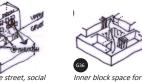


Public-private alliances

community entrance







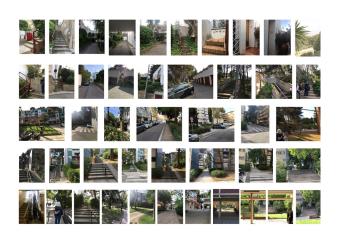
change functions.

Public-private alliances Retrofiting. Reuse and

FIG. 1.76 Small catalogue of Geography Source: made by author

surveilence

Case study Montbau, Barcelona, ESP.







centralities



Combine multilayered in the interseccions of program and juxtaposition. (Complex buildings & blocks) networks.



Programs for living with in walking discance



Integrating and interweaving of networks



Provide generous outdoor spaces and "thickening skin" of the building.



Variantions with in typologies, flexible plan.



Local workshops and ateliers for repair.





FIG. 1.78 Critical Cartography Socioeconomics Source: made by author



Program supported by public space



Square on top of underground parking



All facades with opennings to provide visibility



well dimensioned, using topography, elements, and good interface with ground floor.



Public land as a public good



Public-private alliances



FIG. 1.77 Small catalogue of Socioeconomics Source: made by author

Cartography Socioeconomics

Case study 't Hool, Eindhoven, NED.

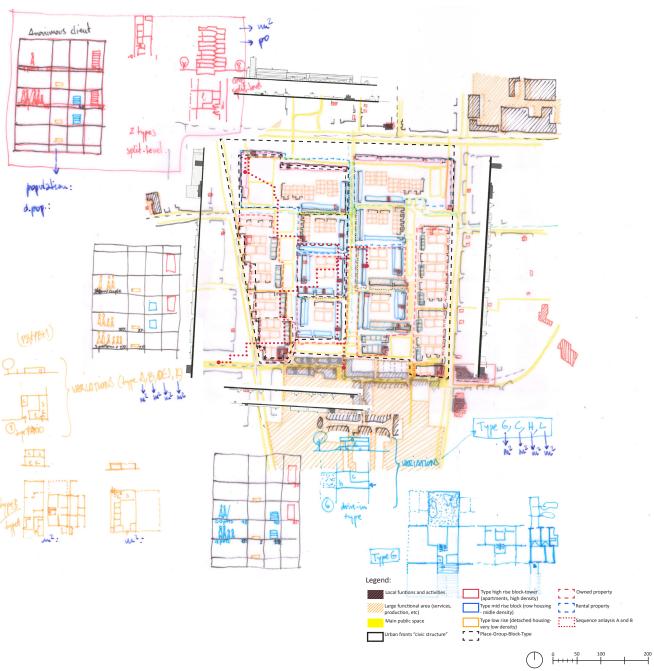


FIG. 1.79 Socioeconomics Critical Cartography of Open Society in 't Hool, Eindhoven, Netherlands. Source: made by author. Data source: historical plans (ref.), pdok platform (2021),

Case study Montbau, Barcelona, ESP.

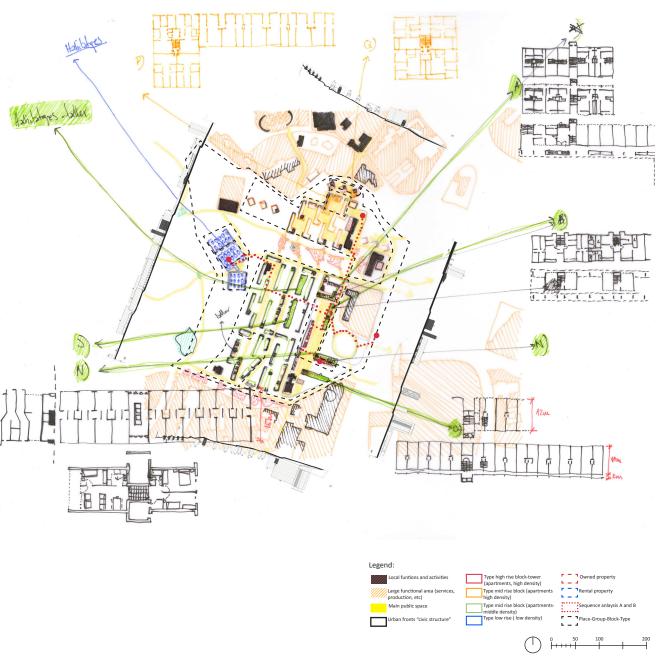
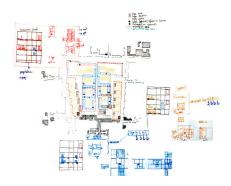


FIG. 1.80 Socioeconomics Critical Cartography of Open Society in Montbau, Barcelona, Spain. Source: made by author. Data source: historical plans (ref), icc platform (2021),



't Hool: - Contrasting with empiric results



Case study 't Hool, Eindhoven, NED.

Principles vs empiric results comparison (success / neutral / failures):

5.-Possibilities to compare various kinds of living at an orderly scale. (NUA-hab III)

1.-Choice for various forms of Housing (NUA-hab III)

2.-Possibility for occupants to alter and extend the dwelling during use. Adapting to seasons (being able

to use a balcony in winter or a camper as an extension of your home) adapting to changes in age groups.

13.-In arranging groups od dwellings, take the privacy of residents into account, especially when combining higher and lower buildings.

7.-Various kinds of activities as closely related to one another as possible, such as living, education, working, shopping and leisure. (NUA-hab III)

38.-For instance, shops for vegetables – bread – milk – groceries – magazines – newspapers – organized as convenience stores. Four together under 1 roof (500–1000m²?)

34.-Spatial variety within the house for example through variations in bay width and use of split levels

19.-Houses for the handicapped, distributed over every neighbourhood of 200 dwellings each (7500 people)

Conclusion:

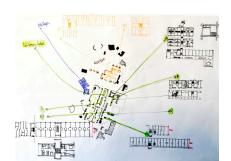
High diversity of forms of housing and living in a heterogenous set up and throughout the scales: unit, block, group, place.

Privacy is taken in account with spatial solutions combined with a mixed of spatial landscape strategies. However, creates problems in the rental tenure area.

Medium "livelihood" area feeling (suburban), not civic structures with commerce through the neighbourhood. Many retrofitting projects for integrating more local services.

High concentration of Knowledge-Health-Sport hubs around and easily accessible (no major barriers and flat surface).

Possibility to compare different kinds of living in a orderly scale.



Montbau:

Contrasting with empiric result



Case study Montbau, Barcelona, ESP.

Principles vs empiric results comparison (success / neutral / failures):

- 1.-Choice for various forms of Housing (NUA-hab III)
- 2.-Possibility for occupants to alter and extend the dwelling during use. Adapting to seasons (being able to use a balcony in winter or a camper as an extension of your home) adapting to changes in age groups.
- 5.-Possibilities to compare various kinds of living at an orderly scale. (NUA-hab III)
- 13.-In arranging groups od dwellings, take the privacy of residents into account, especially when combining higher and lower buildings.
- 7.-Various kinds of activities as closely related to one another as possible, such as living, education, working, shopping and leisure. (NUA-hab III)
- 38.-For instance, shops for vegetables bread milk groceries magazines newspapers organized as convenience stores. Four together under 1 roof (500-1000m²?)
- 34.-Spatial variety within the house for example through variations in bay width and use of split levels
- 19.-Houses for the handicapped, distributed over every neighbourhood of 200 dwellings each (7500 people)

Conclusion:

- -Medium diversity of forms of housing and living majorly in a cluster set up.
- Privacy is taken in account with spatial solutions combined with a mixed of spatial landscape strategies. However, topography creates problems of ground floor treatment.
- Highly "livelihood" area feeling (city), civic structures with local commerce through the neighbourhood.
- -High concentration of Knowledge-Health-Sport hubs around, not easily accessible (barriers and topography).
- Kinds of living separated (not small sparks of experimentation in atelier-housing), not in the same block. (cluster types topography) and "hybrid structures".

Differences and similarities

Socioeconomics ('t Hool-Montbau):

Similarities:

- In both cases, a great variety of typologies linked to different family structures is detected, which introduce variations within each type through spatial alterations such as Split-level.
- The necessary services are accessible to all neighbors.
- -Some of the typologies have been altered and / or transformed to other uses.
- -Houses have not been updated to the current needs of users, nor regulations, nor environmental commitments.
- -Both cases have high accessibility to metropolitan services (hospitals, education centers, public facilities, sports centers, etc.).
- -Both cases have experienced the same shift their economics. Based in an economy of labor and production the sites experienced a change in the needs of society and its economy (digitization, globalization, environmentalism) that has shifted to new economies of communication, knowledge creation and specialization (health, services, universities, etc.).

Differences:

- The sociological approach that is introduced at the beginning in both cases is different. In the case of T 'Hool, the parameters for mixing salary levels as Bakema called" anonymous client "depend on the family structure and the need for space, linking these different structures to various typologies. On the other hand, in Montbau it is decided through the sociological study organized by the Patronat d'habitatge, where it is tried the same as in 't Hool to mix different salary levels.
- -In T 'Hool the typologies appear mixed and forming neighbourhood clusters with different group forms (urban fabrics), that is, there is a mixture of users. On the contrary, in Montbau there are mainly the different typologies grouped according to the development phases: phase 1 linear blocks, second phase L-shaped blocks and towers and the last phase the cooperative's "mat building" semi-detached house block. It is true that there is a bit of diversity of typologies such as the workshop houses that coexist with the upper blocks, but it is not like in the case of T 'Hool where various typologies-social structures coexist.
- -In the case of 't Hool, the services are within reach of the residents, but the juxtaposition of functions model that introduced the "shopping mall" proposal does not help to reinforce the structure the city, rather polarizes on certain points. On the other hand, in Montbau, shops and basic services are located at the bottom of the backbone of the proposal, providing more "city structure".

*Scope:

This study has been carried out from a current view of 2021 on the concept of Open Society (64 principles) introduced in the 1960s and the projects carried out (Welfare State and internationalization process) that showed strong social and experimental wills. Due to the short time, the study area focuses only on the project and immediate context (1,5kmx1,5km), although a broader study could be done and include the territory. In addition to the exhaustive study of the proposals in their time and the current situation, the transformations and improvements that have occurred in this time gap are also considered.

Conclusions

Socioeconomics ('t Hool-Montbau):

Conclusions:

As we have said before, there is a desire to mix different social and economic levels in both proposals. This willingness of a horizontal social distribution of society is shown in the wide and diverse house typologies. In Montbau this approach did not quite work since the percentages established in the sociological reports were not achieved, perhaps the classification by social level was not implicitly introduced in the typology diversity as in 't Hool with the concept of "anonymous client" and mix of housing typologies in the same group or cluster.

Economy (local and global): The introduction of construction cooperatives as future users was a very effective strategy and allowed residents to take ownership of it by participating in the construction, creating a great sense of relevance and a high historical value and artistic, incorporating pieces created by neighbors and nonneighboring artists.

Distribution functions: At that time, in both cases, the economy was based on production promoted by labor (A. Smith), be it artisanal or industrial, which is reflected in both projects. In 't Hool centralized in industrial-workshop areas and a large commercial area (lijban type). In Montbau small workshops and service and commercial areas are located on the ground floors along the civic axes.

Due to the passage of time, in both cases, we find that a generational change is taking place in its population. This has manifested deficiencies in accessibility and the little flexibility of the built structures and surfaces.

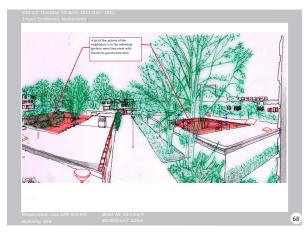
As we have been able to verify with the socio-economic data, the two cases are in a generational change where there is generational diversity and older people. Here is another facet of these projects that were developed in the 60s in which accessibility (ramps, elevators, was not taken into account and this type of profiles was discarded, segregating them to other types of projects) building for the young people of that time.

Urgencies detected

Case study 't Hool, Eindhoven, NED.







Urgencies:

Low mixed used function within the neighbourhood and local services and centres. (started with retrofitting projects already there)

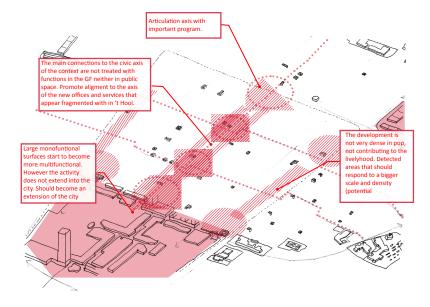
No active civic axis, and programs in the intersections within 't Hool.

Traces of monofunctional planning (sopping area, housing area, working area)

Low density pop/ha.

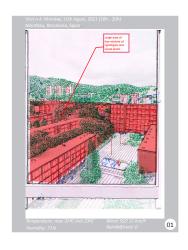
High levels of unemployment and subsidies in north part.

Highly diverse cultures and ages living, locals & foreigners (mixed income levels, still tenure is segregating)

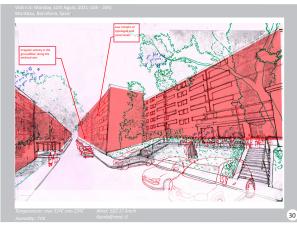


 $\mathsf{FIG}.\,1.81\,$ Axonometric view of the urgencies detected in the topic of Socioeconomics Source: made by author.

Case study Montbau, Barcelona, ESP.







Urgencies:

Low mixed of housing typologies and social levels.

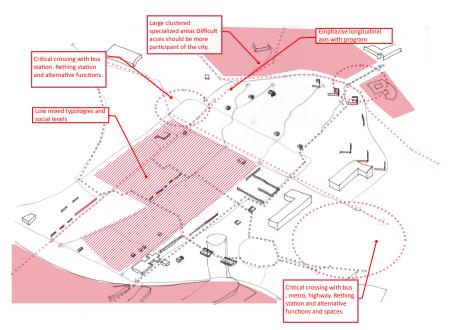
No active civic axis, through 't Hool.

Large clustered areas not participating with the city (walls-difficult access)

Not embraced knowledge economy and local production.

Medium-low levels of unemployment and subsidies.

Highly diverse in age and mediumlow cultures mainly Spanish and few foreigners (not social levels mixed)



 ${\sf FIG.\,1.82}\,$ Axonometric view of the urgencies detected in the topic of Socioeconomics Source: made by author.

Form, Scales and Matter.

Introduction:

In this cartography we will approach the built environment and the scales by contrasting and evaluating the evolution of these concepts over time, the composition methods (type-block-group-place) and their geometric formalization inspired by the Stijl movement introduced by Van Eesteren. In the field of urban planning, an example of this is Buitenveldert, where Van Eesteren investigates through geometric patterns (superposition of meshes or grids and swastika turns, which are observed in both study cases achieving a continuous centrifugal movement that generates multipurpose connected spaces) and proportions, which show us how the space can be continuous and at the same time have different characters and scales, starting from the block that he called "stamp" to configuring the place.

This knowledge is transferred to the young Dutch architects Bakema and Van Eyck who explore the selection of scales and configurations of spaces (Aldo Van Eyck configurative discipline) in Alexander polder, Pendrecht and Nagele exposed as experiments at CIAM, thus reaching a change in the approximation of the built environment and scale from a completely relational point of view (64 Bakema principles) and the beginning of network and system thinking and pattern language (C Alexander, 1965, 1977)

Method:

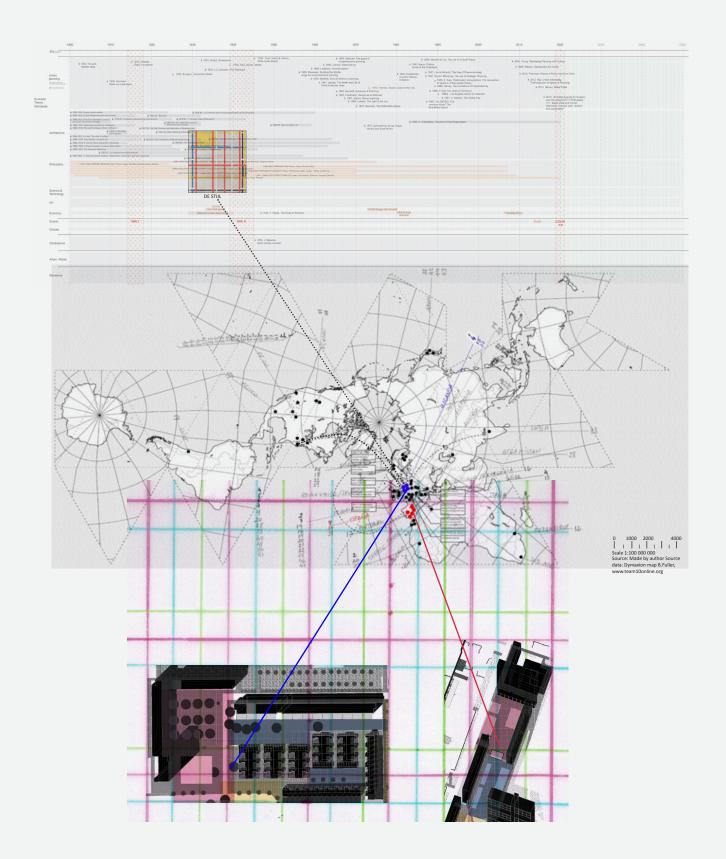
It is studied, looking from the present, observing the projects carried out in the 60s, how and with what tools and design mechanisms they had to distribute and configure the neighbourhoods, (method, mesh, geometric patterns, visual group study, centers and scales, region-land, space syntax, space matrix-built density) from a look at concepts where the proposals around methods of use of scales (type-block-group-place) are studied, which try to combine scales and the conception of the environment (model developed by Van Eesteren and studied and used by Bakema). Also developed by Bakema, by introducing pieces into the block generating what Van Eyck calls a labyrinth configuration.

*Notes:

*Scope:

All the analysis and test mentioned in the methodology are located in the PartIII-Appendix (cartographies)

This study has been carried out from a current view of 2021 on the concept of Open Society (64 principles) introduced in the 1960s and the projects carried out (Welfare State and internationalization process) that showed strong social and experimental wills. Due to the short time, the study area focuses only on the project and immediate context (1,5kmx1,5km) although a broader study could be done and include the territory. In addition to the exhaustive study of the proposals in their time and the current situation, the transformations and improvements that have occurred in this time gap are also considered.



Visual sequence "From Chair to City"

City to chair sequence (A) in 't Hool, Eindhoven, NED.



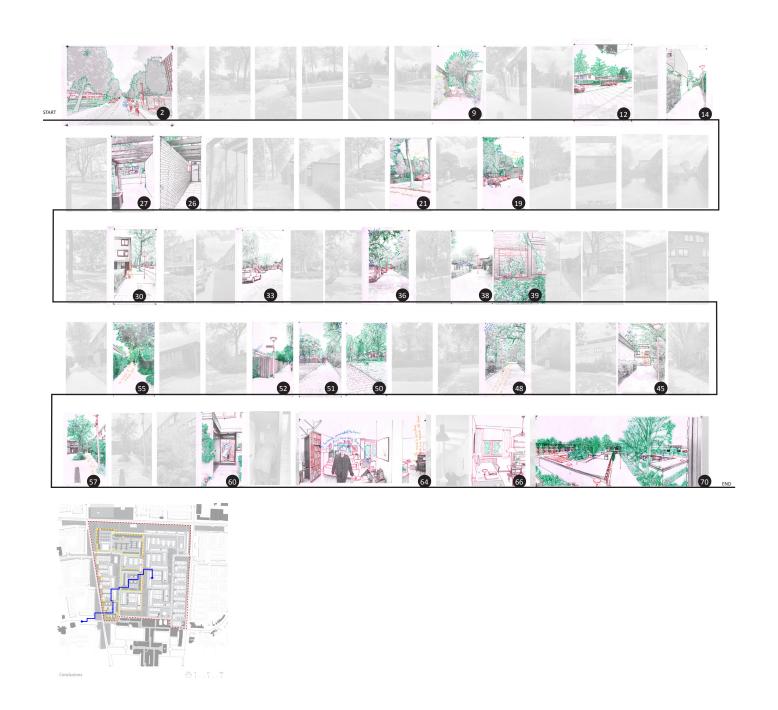
Chair to city sequence (B) in 't Hool, Eindhoven, NED.





Points of atmospheric intensity

City to chair sequence in 't Hool, Eindhoven, NED.



Chair to city in 't Hool, Eindhoven, NED.

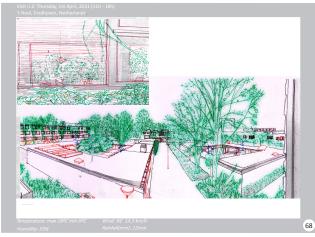




Composition and Atmospheres

City to chair sequence in 't Hool, Eindhoven, NED.



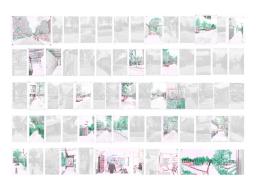












Chair to city in 't Hool, Eindhoven, NED.

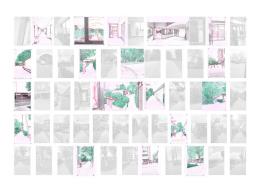






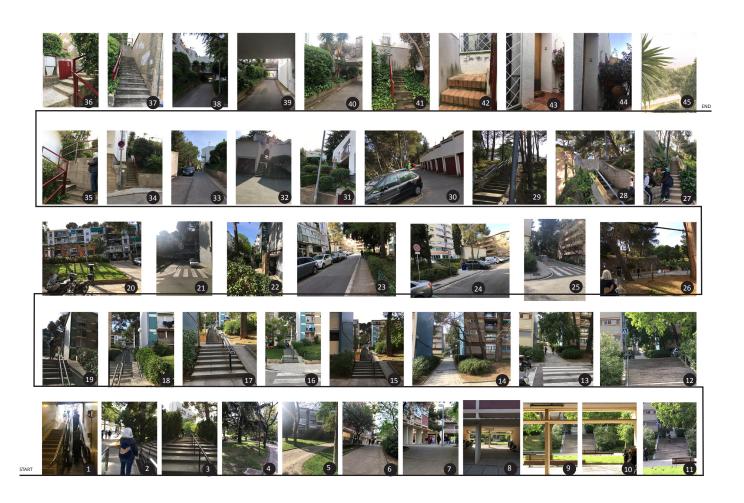






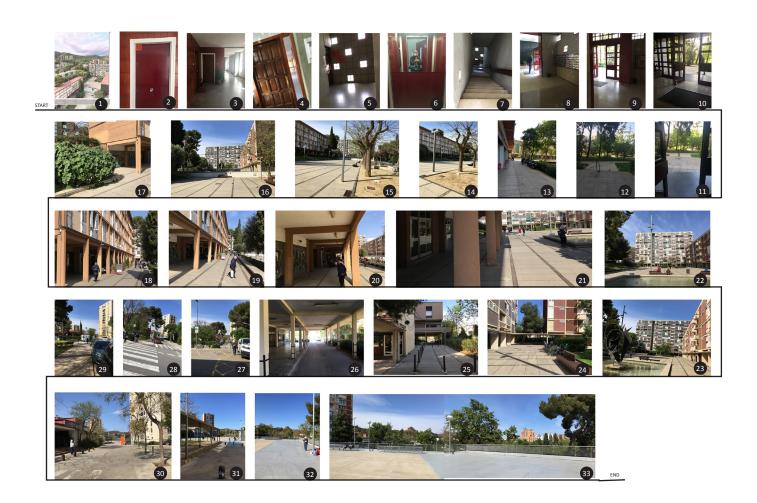
Visual sequence "From Chair to City"

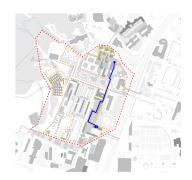
City to chair sequence (A) in Montbau, Barcelona, ESP.





Chair to city sequence (B) in Montbau, Barcelona, ESP.





Points of atmospheric intensity

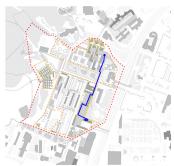
City to chair sequence in Montbau, Barcelona, ESP.





Chair to city in Montbau, Barcelona, ESP.





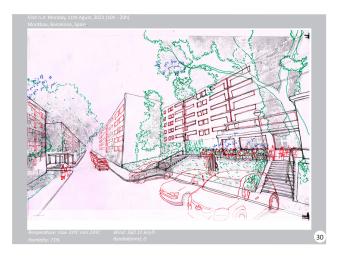
Composition and Atmospheres

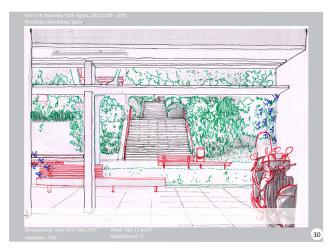
City to chair sequence in Montbau, Barcelona, ESP.

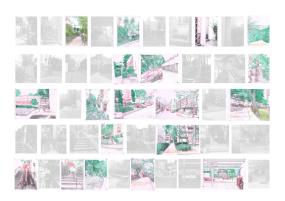












Chair to city in Montbau, Barcelona, ESP.

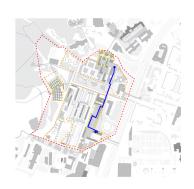


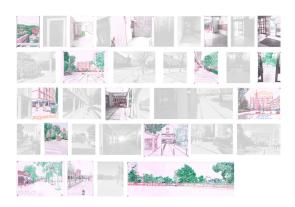












Form, Scale, Matter catalogue

Case study 't Hool, Eindhoven, NED.





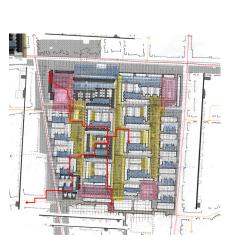
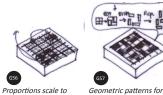


FIG. 1.83 Critical Cartography Form, scale, matter Source: made by author



Geometric patterns for configuring open blocks and centrifugal interior block



Volumetric transition with the context and scales



Articulation IN-OUT urban corners



Permeability ground floor



type-block-group-place

3 Levels of living (three parts of the building)



Permeability in ground floor level



Dimensioning according to scales and human perception to them.



Visibility in all facades, specially in ground floor (diagonal views)



Spatial variations (splitlevel) to create diverse housing units and dealing with topograpgy



Creation of diagonal views (expansion space)



Thickenning skin buildings (loggias, balconies, setbacks, cantilivers, etc)



Materiality acording to type and scale environment.



Diverse types of built forms within a block and bridge building



responding to users location and scale

FIG. 1.84 Small catalogue of Form, Scale, Matter Source: made by author

Case study Montbau, Barcelona, ESP.







Geometric patterns for configuring open blocks and centrifugal interior block



Volumetric transition with the context and scales



Dimensioning public space using elementc and level heights



Visibility through ground floor



3D articulation of complex corners and heights

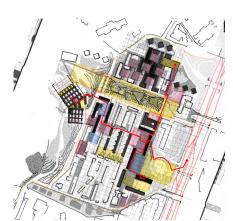


FIG. 1.86 Critical Cartography Form, Scale, Matter Source: made by author



Extension ground floor towards exterior (facade alignement) infront a public space



Permeability in ground floor level



Dimensioning according to scales and human perception to them.



Visibility in all facades, specially in ground floor (diagonal views)



Spatial variations (split-level) to create diverse housing units and dealing with the topograpgy



Creation of diagonal views (expansion space)



Thickenning skin buildings (loggias, balconies, setbacks, cantilivers, etc)



Architecture construction and materiality acording to type and scale environment.

FIG. 1.85 Small catalogue of Form, Scale, Matter Source: made by author

Cartography Form, Scale, Matter

Case study 't Hool, Eindhoven, NED.

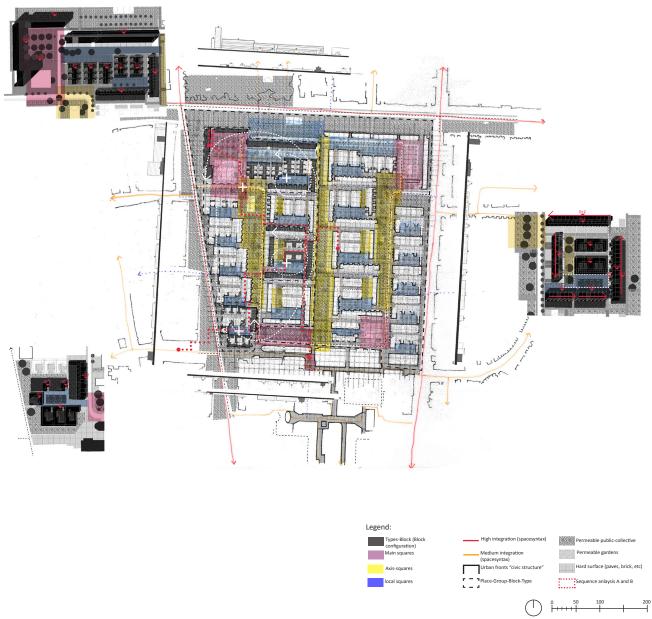


FIG. 1.87 Form, Scale, Matter Critical Cartography of Open Society in 't Hool, Eindhoven, Netherlands. Source: made by author. Data source: historical plans (ref.), pdok platform (2021),

Case study Montbau, Barcelona, ESP.

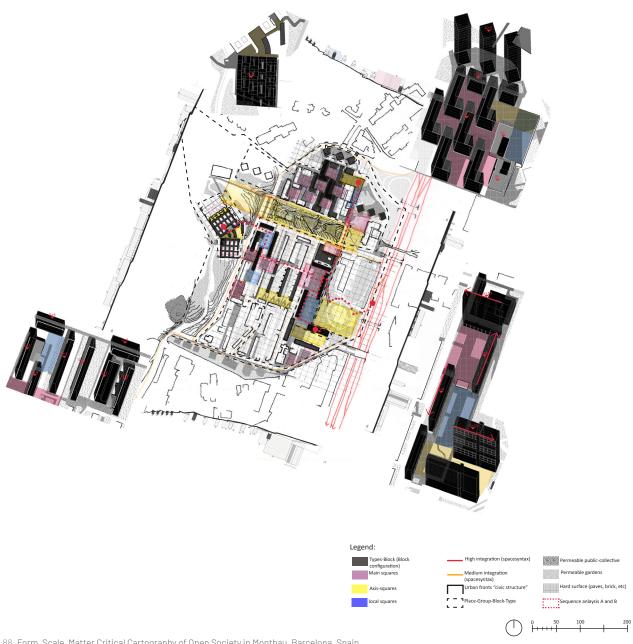
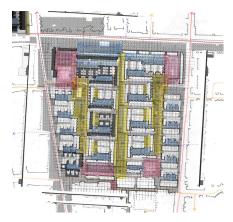


FIG. 1.88 Form, Scale, Matter Critical Cartography of Open Society in Montbau, Barcelona, Spain. Source: made by author. Data source: historical plans (ref), icc platform (2021),



't Hool:

Case study 't Hool, Eindhoven, NED.

Principles vs empiric results comparison (success / neutral / failures):

2.-Possibility for occupants to alter and extend the dwelling during use. Adapting to seasons (being able to use a balcony in winter or a camper as an extension of your home) adapting to changes in age groups.

7.-Various kinds of activities as closely related to one another as possible, such as living, education, working, shopping and leisure.

8.-Smooth transition from private to public.

9.-Space for unforeseen circumstance inside and outside the home, for instance hobby+study, space+music.

13.-In arranging groups od dwellings, take the privacy of residents into account, especially when combining higher and lower buildings.

14.-Enclosed galleries in high-rise blocks to prevent drafts at front doors.

15.-Within groups of dwellings: Safe playgrounds and kindergartens.

22.-In the case of high-rise, make balconies as large as a small room and as half loggias-closeable and heatable in winter (the former "conservatory"), possibility of dinning outside.

26.-Space for solar shading outside or inside designed in advance.

29.-Mutual accessibility on higher floors of closely grouped high-rise blocks. The "bridge streets" for deliveries + visits to neighbours.

35.-Sufficient acoustic materials to absorb sound from television.

44.-Better harmonization between urban and architectural work.

52.-An elementary human need is the ability to compare. ...one with the other..., ...yesterday with today and tomorrow..., determining location: ... Knowing where you are ...

Conclusion:

The visual group is perfectly executed. The proportion of the different "central spaces", the dimensions and scale, the geometrical patterns and the connection visual sequence created to linked those spaces has a good transitions that makes you aware of the scale and kind of living of those places. I would say you experience the "total space" and friendship model.

Public space is synchronic but need for a better treatment such as benches, bins, etc.

 $\label{lem:completely} \textbf{Urban and architectural work is completely articulated from a volumetric point of view.}$

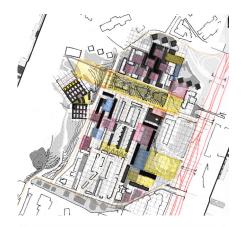
Possibility of living above, between, under trees (three levels city).

The grids and structures proposed since the beginning area quite flexible to rearrange physically and programmatically.

The privacy is worked marvellously though spatial articulations (threshold, diagonal views, visibility and depth through the windows, concatenated spaces and privacy with landscape strategies creating ambiguous spaces where daily life (interior-exterior) meets.

Materials and construction performance: the quality of the execution is highly well done, the materials are most of them porous and prefabricated, although quite some concrete. In the plan details it is shown the isolation for temperature and noise, medium-low energy performance.

Good orientation, cross-ventilation, thermic buffers, etc.



Montbau:

Contrasting with empiric results



Case study Montbau, Barcelona, ESP.

Principles vs empiric results comparison (success / neutral / failures):

2.-Possibility for occupants to alter and extend the dwelling during use. Adapting to seasons (being able to use a balcony in winter or a camper as an extension of your home) adapting to changes in age groups.

7.-Various kinds of activities as closely related to one another as possible, such as living, education, working, shopping and leisure.

8.-Smooth transition from private to public.

9.-Space for unforeseen circumstance inside and outside the home, for instance hobby+study, space+music.

13.-In arranging groups od dwellings, take the privacy of residents into account, especially when combining higher and lower buildings.

14.-Enclosed galleries in high-rise blocks to prevent drafts at front doors.

15.-Within groups of dwellings: Safe playgrounds and kindergartens.

22.-In the case of high-rise, make balconies as large as a small room and as half loggias-closeable and heatable in winter (the former "conservatory"), possibility of dinning outside.

26.-Space for solar shading outside or inside designed in advance.

29.-Mutual accessibility on higher floors of closely grouped high-rise blocks. The "bridge streets" for deliveries + visits to neighbours.

35.-Sufficient acoustic materials to absorb sound from television.

44.-Better harmonization between urban and architectural work.

52.-An elementary human need is the ability to compare. ...one with the other..., ...yesterday with today and tomorrow..., determining location: ... Knowing where you are ...

Conclusion:

- The proportion of the "central space" Montbau square, the little squares of 2nd phase or the patios of the cooperative housing, the dimensions and scale, the geometrical patterns and the connection visual sequence created to linked other spaces has a good transitions that makes you aware of the scale and type of space it is. However, in the north-west part of the 1st phase the proposal becomes a bit banal where the building block follow kind of geometric pattern but it ends in a simples linear blocks along the topographic lines.
- Public spaces are synchronic and specialized, it adapts perfectly to the topography framing the space and giving a good proportion, it feels pleasant. Moreover, the treatment of it is excellent, all sorts of features specially in the central square of Montbau, creating a vibrant and pleasant atmosphere. However, this type of features are not conceived for environmental purposes and recycled methods.
- Urban and architectural work is articulated from a volumetric point of view. However the urban setting is not as rich as in 't Hool (setback, porosity façade, articulation roof-body-ground floor), etc. The work of the contact between ground floor and public space is excellently worked in the central square and provides many solutions for the all site.
- $\ Possibility \ of \ living \ above, \ between, \ under \ trees \ (three \ levels \ city). \ Not \ mixed \ in \ the \ same \ "group".$
- The grids and structures proposed since the beginning area quite flexible to rearrange physically and programmatically.
- Materials and construction performance: the quality of the execution is highly well done, the materials are mainly concrete and few porous and combined prefabrication, work on site and artisanal. In the plan details it is not shown much or not isolation isolation for temperature and noise, poor energy performance.
- Good orientation, cross-ventilation, small thermic buffers (not enough), etc.

Differences and similarities

Form, Scale, Matter ('t Hool-Montbau):

Similarities:

- The volumetric organizations of both proposals respond to the environment and the metropolitan communication lines, making a gradient between the smallest and community to the largest and metropolitan, that is, articulating the scales. It also generates a visual scheme that helps navigate and orient users within the neighbourhood.
- The harmonization between architecture and urbanization in both cases is of high quality, in addition to the high constructive execution.
- The smooth transition between public and private space, in many cases, works. Although we find problems related to the type of property and typology.
- The central block configuration of Montbau resembles the geometric pattern and strategy of the blocks on 't Hool rotating in svastika. However, in 't Hool one of the parts is suppressed by the other block, strategy we can see comes from builtenveldert, Alexanderpolder, Pendrecht and applied here with a small change. This strategy helps to create an open centrifugal block, creating enough façade to configure a centre and atmosphere but dynamic.

Differences:

- The gradient of spaces in relation to the realms (from city to home) in 't Hool is clear and quite well articulated using the "stamps", changing the typologies in relation to the scale and environment and keeping always in mind the friendship model towards the centre of the group. While in Montbau the centre piece with the square resembles the same configurative strategy o geometrical pattern solution rotation in swastika (Martinez, 2010), that we can see in Buitenveldert, Alexanderpolder in order to create centrifugal spaces that can be linked and scaled up from the house to the city.
- The ground floors in 't Hool work around the different community centres without consistently articulating the corners of these with the metropolitan axes "creating the city." On the other hand, in Montbau, we can see that the arrangement of the ground floors and typologies articulate the neighbourhood and communal spaces with the metropolitan urban civic axes.
- While in t 'Hool the exterior spaces of the houses are generous, for example: balconies, loggias, etc.), in Montbau these exterior spaces are small, causing their disuse or inappropriate use.
- The spaces for use and non-planned or unscheduled activities in 't Hool are carried out mainly in community spaces, while in Montbau they take place in public spaces.

*Scope:

This study has been carried out from a current view of 2021 on the concept of Open Society (64 principles) introduced in the 1960s and the projects carried out (Welfare State and internationalization process) that showed strong social and experimental wills. Due to the short time, the study area focuses only on the project and immediate context, although a broader study could be done and include the territory. In addition to the exhaustive study of the proposals in their time and the current situation, the transformations and improvements that have occurred in this time gap are also considered.

- The configuration of public spaces in 't Hool is very open and extensive (without limits), while in Montbau it is extensive but limited. The dimensions of the public space in Montbau seem to work better.
- In public spaces, we can observe (possibly related to the weather and culture) that the use of public space in T 'Hool normally occurs in sunny areas (community and private) thus showing a low level of treatment of public space (no there are bins, no seats, etc). In Montbau the treatment of public space is greater and usually responds to the weather and the Mediterranean tradition of protecting oneself from the sun.
- The constructed form, the groupings and the relationship of their scales contain a greater richness in 't Hool than in Montbau, because it contains a typological and spatial richness that is not found in Montbau's groups.

Conclusions

Form, Scale, Matter ('t Hool-Montbau):

Conclusions:

The first conclusion of this study shows that comparing both proposals is complex to compare because in Montbau it was changing through the different phases of the project in its principles and urban models. Still, we can compare similar spaces between proposals.

't Hool shows an exceptional work in the configuration of the built form, its groupings and the relationship between different scales. Montbau can be seen that the evolution of the different urban forms carried out in the different phases responds to the different veins of thought and evolution in the urban form and theory of the moments, the great work of public space and its treatment today shows spaces that they continue to function, well organized and dimensioned. In summary, the urban form of 't Hool shows a great advance in that time, as Aldo van Eyck catalogues it as an example of configurative discipline, combining lessons from Alexanderpolder (central civic axes), Nagele (cluster and identity) and Pendrecht (open block configuration, with a centrifugal centre that rotates in a swastika). In Montbau we can learn the great mastery of the configuration of public spaces (central square, squares in L-shaped blocks, etc.) and their treatment.

Type:

It seems that 't Hool has already installed elevators from the beginning, and it does not seem to be the case in Montbau that there are several accessibility problems (older people, people in wheelchairs, etc.). In 't Hool, the vertical connections are centralized, so that at the end of their horizontal connections there is very little connectivity with the ground (vertical connection).

The diversity of typologies and variations within these is a characteristic of these proposals. In 't Hool it can be seen the transformation of the typologies physically and programmatically, in Montbau programmatic transformation is detected. This indicates that the ground floors are better worked in Montbau, mainly in the first phase of the proposal.

In both 't Hool and Montbau, very interesting typologies appear, doubling the access on both sides of the piece, pieces with the possibility of extension, some piece facing its two facades, etc.

Spatial articulations have been found in both cases of the ground floors that show potential to be replicated in other places of the proposal.

Block:

*Scope:

This study has been carried out from a current view of 2021 on the concept of Open Society (64 principles) introduced in the 1960s and the projects carried out (Welfare State and internationalization process) that showed strong social and experimental wills. Due to the short time, the study area focuses only on the project and immediate context, although a broader study could be done and include the territory. In addition to the exhaustive study of the proposals in their time and the current situation, the transformations and improvements that have occurred in this time gap are also considered.

The configuration of the block or "seal" we could say that in 't Hool it is very well organized, mixed and articulates all the scales while in Montbau different types of urban fabrics appear, with different configurations. In the first phase it is solved with linear blocks, in the second phase in L-shaped blocks, isolated blocks and towers, and in the third phase due to the topography it is solved through the typology that adapts to the terrain in the form of "mat building".

What we detected is that the empty spaces could be compared between cases, for example, the community spaces of the pieces in the central space of the neighbourhood groups of 't Hool or blocks B.

Group:

To guarantee pedestrian traffic in both proposals, the introduction of macroblocks is chosen in both cases that allow the interlacing of pedestrian and road axes. These connections appear to follow the meshes and paths that the topography allows.

There are facades that face some of these axes that are blind or turn their backs and do not give it activity.

In these groups we detected that the public-community spaces of both proposals could be compared since Montbau better solves and limits the configuration of public space.

Place:

The two proposals spatially articulate some metropolitan and neighbourhood axes, although the structures are different. There are some intra-neighbourhood axes that in the space syntax study show that there is little connectivity and disconnection. In addition, little use of these main axes is detected due to their lack of active fronts with functions and programmatic articulation at their intersections, especially in 't Hool.

Urgencies detected

Case study 't Hool, Eindhoven, NED.







Urgencies:

Roofs are unused space (some energy technologies appear)

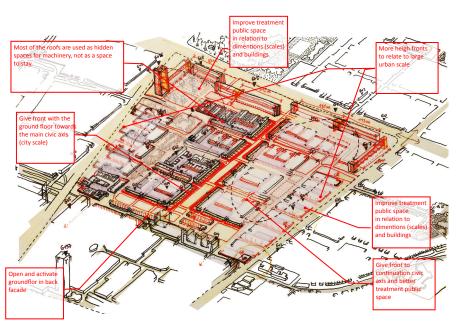
Better connectivity roof to ground surface.

Work groundfloor in the continuation of civic axis (center, north,etc)

Improving in general treatment of public spaces

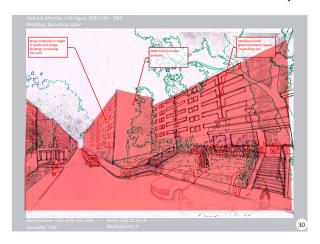
Improving treatment of central spaces (block, group and place)

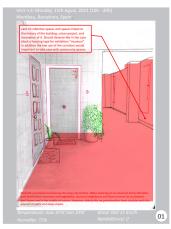
Completing fronts according to scales (more high) in city scale.



 ${\sf FIG.\,1.89}\,$ Axonometric view of the urgencies detected in the topic of Form, Scale, Matter Source: made by author.

Case study Montbau, Barcelona, ESP.







Urgencies:

Roofs are unused space (some energy technologies appear)

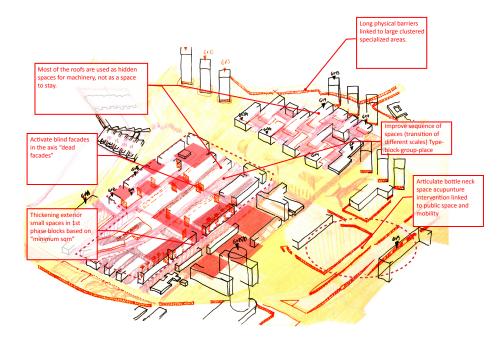
Better connectivity roof to ground surface.

Work groundfloor in the continuation of civic axis

Work unactive "dead facades"

Improving "sequence" of empty spaces in relation to scale in 1st phase (geometric patterns).

Treat barriers for better connectivity with the surrounding and improve connection different heigh public space (inclusive for all ages)



 ${\sf FIG.\,1.90}\,$ Axonometric view of the urgencies detected in the topic of Form, Scale, Matter Source: made by author.

Technology and Networks

Introduction:

To analyse infrastructures and networks, we must begin by understanding the evolution of the approach to these between the 1960s and 2021.

In the 1960s they were understood above all as an element of road mobility, civil engineering, although Bakema already mentioned networks communication (telecommunications), Perhaps the use of these could not be accessible to everyone due to their high cost.

Today we find that communication networks are one of the fundamental tools of social, economic, industrial, road, etc... interrelation.

Method:

Within the methodology, we will emphasize accessibility to networks, the categorization of how and where these digital networks are linked and in which physical spaces they are located, the hierarchies of these networks in space and what negative externalities they have, etc.

We will use the following tools: Study of network accessibility and its relationship with topography. Studies of categorization of how and where these digital networks are linked and in which physical spaces they are located. Analysis of the connectivity of these networks in space. What negative externalities do these generate?

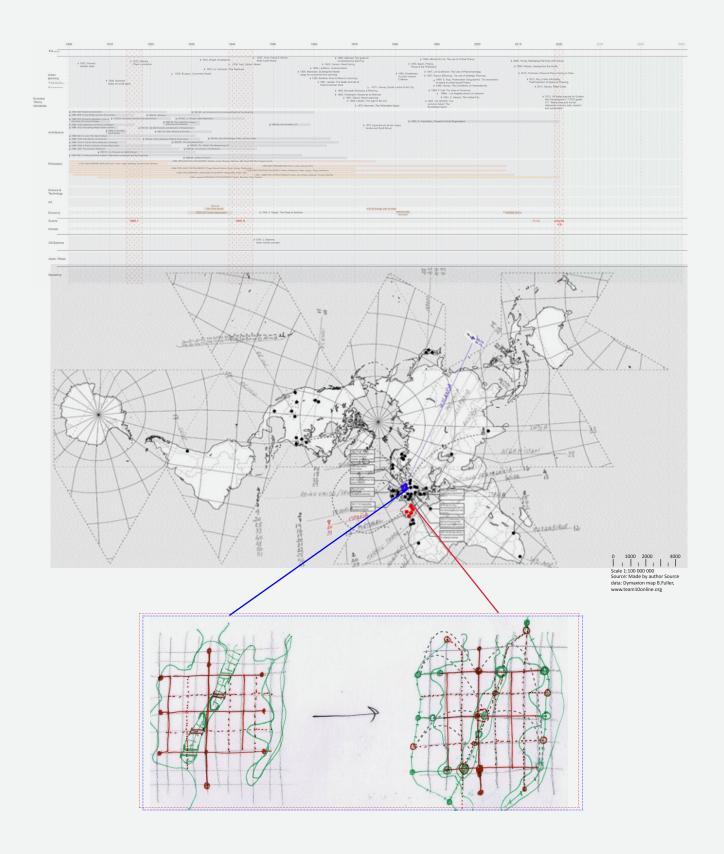
The question of networks is analysed, we find that communication networks are one of the fundamental networks of social interaction. For this reason, the different networks and platforms are studied and how they are used in the neighbourhood. They are found on broadcast platforms and on communication platforms between neighbours and are normally linked to culture and safety.

*Notes:

*Scope:

All the analysis and test mentioned in the methodology are located in the PartIII-Appendix (cartographies)

This study has been carried out from a current view of 2021 on the concept of Open Society (64 principles) introduced in the 1960s and the projects carried out (Welfare State and internationalization process) that showed strong social and experimental wills. Due to the short time, the study area focuses only on the project and immediate context (1,5kmx1,5km), although a broader study could be done and include the territory. In addition to the exhaustive study of the proposals in their time and the current situation, the transformations and improvements that have occurred in this time gap are also considered.



Visual sequence "From Chair to City"

City to chair sequence (A) in 't Hool, Eindhoven, NED.



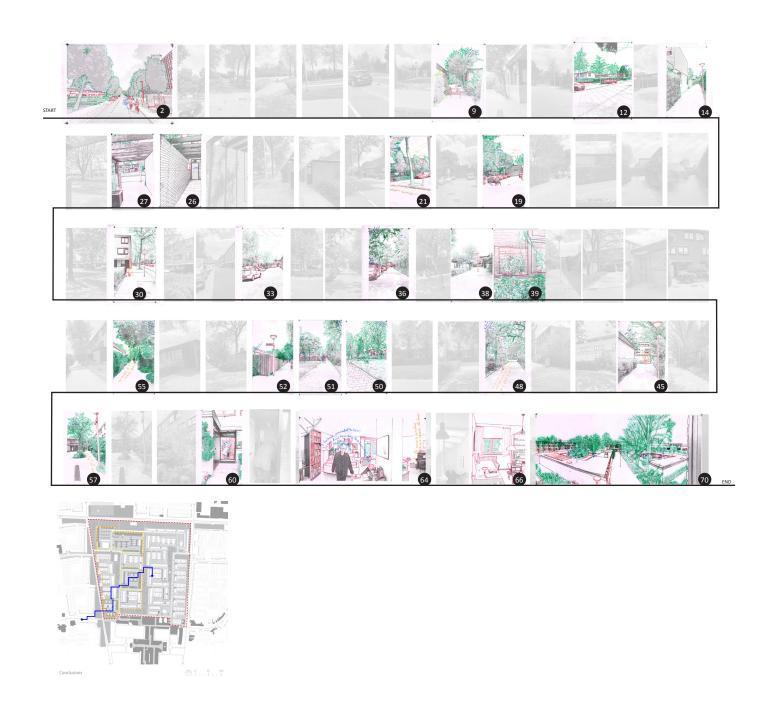
Chair to city sequence (B) in 't Hool, Eindhoven, NED.





Points of atmospheric intensity

City to chair sequence in 't Hool, Eindhoven, NED.



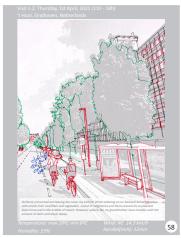
Chair to city in 't Hool, Eindhoven, NED.

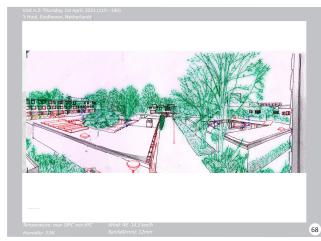




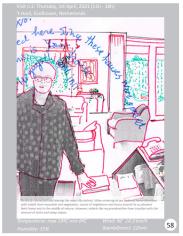
Technology and Atmospheres

City to chair sequence in 't Hool, Eindhoven, NED.



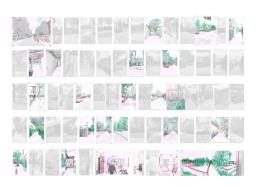












Chair to city in 't Hool, Eindhoven, NED.

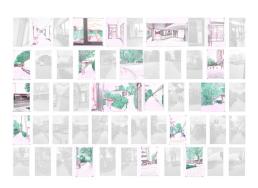






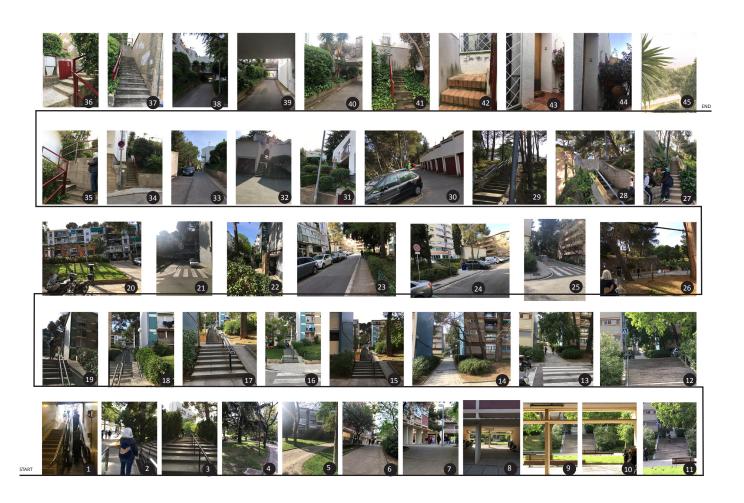






Visual sequence "From Chair to City"

City to chair sequence (A) in Montbau, Barcelona, ESP.





Chair to city sequence (B) in Montbau, Barcelona, ESP.





Points of atmospheric intensity

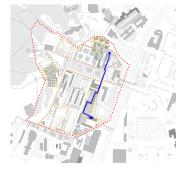
City to chair sequence (A) in Montbau, Barcelona, ESP.





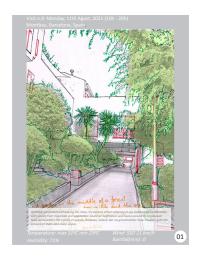
Chair to city sequence (B) in Montbau, Barcelona, ESP.



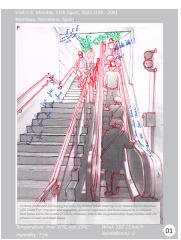


Technology and Atmosphere

City to chair sequence in Montbau, Barcelona, ESP.



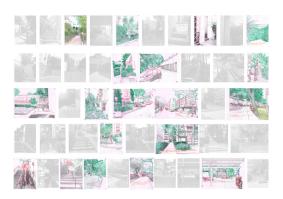












Chair to city in Montbau, Barcelona, ESP.

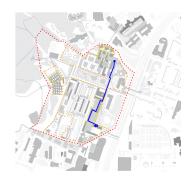


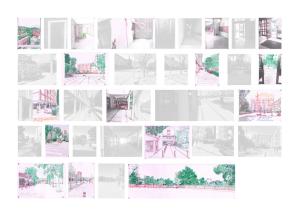












Technology and Networks catalogue

Case study 't Hool, Eindhoven, NED.





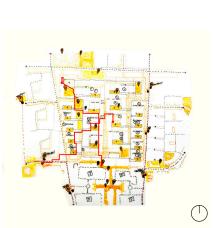
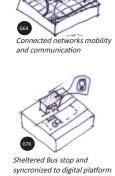


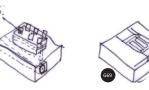
FIG. 1.91 Critical Cartography Technology-Networks

Source: made by author



Incentives for energy transition







Cossing points

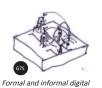
(zebra+traffic ligth)



Street lighting

Descentralized models of energy (light, water heating)

Elevated cossing point (same Negative externality "high level pavement-pedestrian voltage cable" posibility to priority) move underground



platforms using and meeting

in real spaces around the

Transition from organized development along main infrastructure lines and to



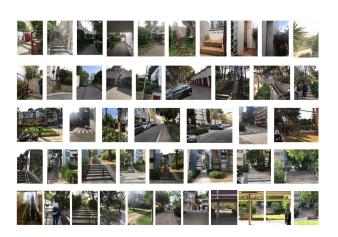
decentralized production-

consumption models

more dull and spontaneous

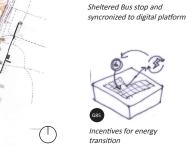
FIG. 1.92 Small pattern catalogue (found) of Technology and Networks

Source: made by author









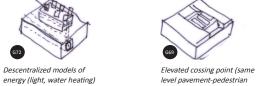
Connected networks mobility

and communication











Formal and informal digital platforms using and meeting in real spaces around the neighbourhood



Cossing points

(zebra+traffic ligth)

level pavement-pedestrian priority)



Transition from organized development along main infrastructure lines and to more dull and spontaneous

FIG. 1.94 Critical CartographyTechnology-Networks Source: made by author

FIG. 1.93 Small pattern catalogue (found)of Technology-Networks Source: made by author

Cartography Technology and Networks

Case study 't Hool, Eindhoven, NED.

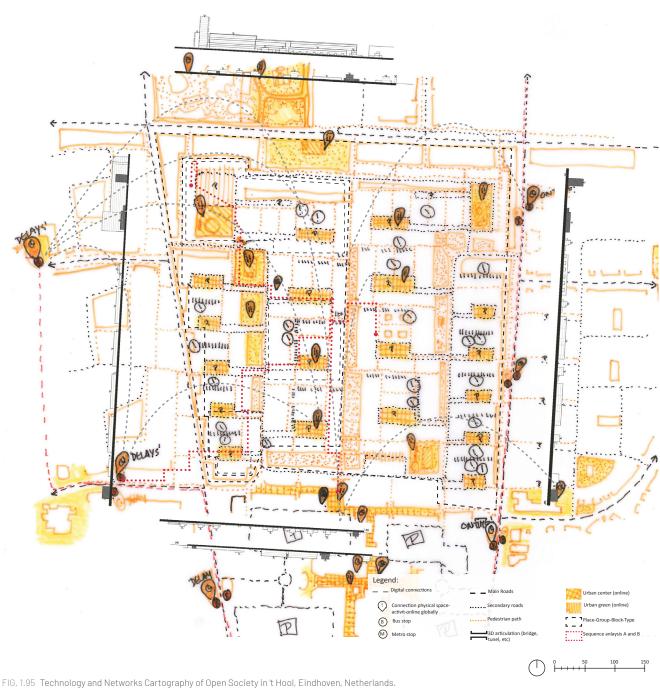
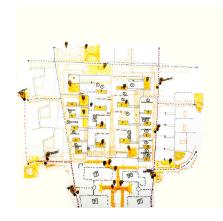


FIG. 1.95 Technology and Networks Cartography of Open Society in 't Hool, Eindhoven, Netherlands. Source: made by author. Data source: historical plans (ref.), pdok platform (2021),



FIG. 1.96 Technology and Networks Cartography of Open Society in Montbau, Barcelona, Spain. Source: made by author. Data source: historical plans (ref), icc platform (2021),



Case study 't Hool, Eindhoven, NED.

Principles vs empiric results comparison (success and failures):

6.-Equality in level of public and private transport.

10.-A dwelling no more than 5 min walk from a public transport stop.(canopy)

14.-Enclosed galleries in high-rise blocks to prevent drafts at front doors.

 $29. \hbox{-Mutual accessibility on higher floors of closely grouped high-rise blocks. The \it "bridge streets" for \it the \it t$

deliveries + visits to neighbours.

30.-No vehicular traffic through neighbourhoods.

39.-Urbanization along (not against) new regional energy lines, partly formed by the new roads.

58.-Our present time and the time and the time ahead will probably be chiefly characterized by

communication – automation – playful use of time. This was evident in, among others, Osaka 191970s Dutch section with its communication machine.

't Hool:

asting with empiric results



Conclusion:

Good networks of bicycles

Good balance between pedestrian and road network

Easily and Highly accessible (next to big bus hub and metropolitan centre)

 $\label{thm:lightly accessible via digital networks and platforms of the association. \\$

Enough public transport but not equilibrated with private transport

Crossing of types of networks not well solved (not accessible, unhealthy), for example zebra crossing points, etc.)

Energy transition and concerns started slowly and individually.

Strong informal network and sense of collaborative support within the neighbourhood.



Principles vs empiric results comparison (success / neutral / failures):

6.-Equality in level of public and private transport.

10.-A dwelling no more than 5 min walk from a public transport stop.(canopy)

14.-Enclosed galleries in high-rise blocks to prevent drafts at front doors.

 $29. \hbox{-Mutual accessibility on higher floors of closely grouped high-rise blocks. The \it "bridge streets" for \it the \it t$

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39.-Urbanization along (not against) new regional energy lines, partly formed by the new roads.

58.-Our present time and the time and the time ahead will probably be chiefly characterized by

communication – automation – playful use of time. This was evident in, among others, Osaka 191970s Dutch section with its communication machine.

't Hool:



Conclusion:

No bicycles networks (topography limitation)

Good balance between pedestrian and road network

Easily and Highly accessible (next to big bus hub and metropolitan centre)

Highly accessible via digital networks and platforms of the association.

Equilibrated public and private transport

Crossing of types of networks not well solved (not accessible, unhealthy), for example zebra crossing points, etc.)

Energy transition and concerns started slowly addressed and not very advanced.

Strong informal network and sense of collaborative support within the neighbourhood.

Differences and similarities

Technology and networks('t Hool-Montbau):

Similarities:

The similarity of both cases, during construction, is that technology was understood as a fact derived from engineering and industrialization. At that time, technology understood as a communication tool was not fully accessible and inexpensive as it is today with satellites, which have become necessary and indispensable infrastructures in all our territories.

The two proposals are structured through the road with specific areas, such as parking. Over time, public transport has balanced accessibility to the neighbourhood to a certain extent more in Montbau than in 't Hool.

The permeability and accessibility in the main road axes is limited, in Montbau there are three specific accesses in 't Hool there are two zebra crossings almost 600m from each other.

Differences:

The most significant difference is found in the road structure of the proposals. While in t 'Hool there is a clear tree structure, there are also different models such as large linear blocks with little road and" culs de sac".

It must be said that the road intensities are different in the two cases. In 't Hool we find the great flow rolled in the outer streets that access the neighbourhood in the shape of a ring, with little intensity (one lane) that sews the two "tree" structures. While Montbau has a perimeter road that we could understand as a fairly busy "ring" in the central part and in the backbone along the Montbau gardens (Poesía street, two two-way lanes), these give access to the Secondary vials with less traffic (linear vials and sack butt)

The accessibility to the 't Hool neighbourhood lacks pedestrian zones that allow safe passage within it. While in Montbau this issue is completely resolved.

*Scope:

This study has been carried out from a current view of 2021 on the concept of Open Society (64 principles) introduced in the 1960s and the projects carried out (Welfare State and internationalization process) that showed strong social and experimental wills. Due to the short time, the study area focuses only on the project and immediate context (1,5km x 1,5km), although a broader study could be done and include the territory. In addition to the exhaustive study of the proposals in their time and the current situation, the transformations and improvements that have occurred in this time gap are also considered.

Conclusions

Technology and networks ('t Hool-Montbau):

Conclusiones:

In this section we have been able to conclude that the conception of technology at that time, that at that time, is not the same as we have today. Technology has advanced a lot and has given opportunities to solve some of the problems that we have found at the beginning of the proposal and that have been solved with new interventions to improve the accessibility of places and the introduction of new technologies such as communication.

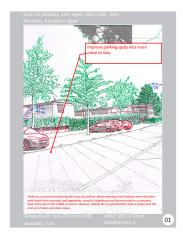
This change in technology allows today to communicate more easily and is accessible to everyone. This is materialized in networks and digital platforms that are used for the dissemination of information and social networks that are used in both cases of study in the form of neighbourhood control and security, as well as platforms for cultural promotion, neighbourhood activities, etc. Therefore, the management of events and the places where they take place is more subject to the decisions of users' meeting, planned or spontaneous. Examples of use other than the planning and treatment of the initially programmed space (examples: bootcam on the soccer field in 't Hool, the neighbourhood barbecues in the central parking area of the blocks acting as a central square, in Montbau, the zones are given group uses (birthday parties) in public spaces of the stream, cultural games throughout the neighbourhood, etc.).

First, it is relevant to highlight that these places were developed during the time when the car was a symbol of individual freedom, this led to many inequalities and environmental consequences.

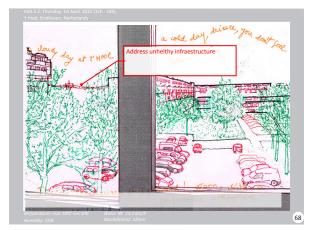
At the beginning of the proposals, the accessibility models to the areas were carried out mainly in private transport, but over time these proposals have been updated and incorporated public transport models, making the public-private transport balance more balanced and providing greater accessibility with new public transport networks close to the proposals.

Urgencies detected

Case study 't Hool, Eindhoven, NED.







Urgencies:

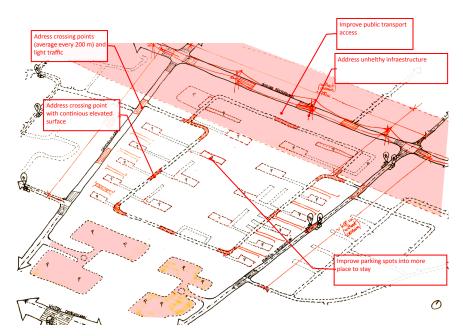
Roofs are becoming the hidden space to support mechanic machinery

Better integration of unhealthy networks that creates negative externalities.

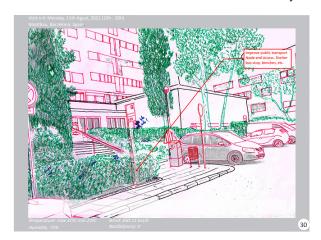
Address the crossing points of networks, better accessibility.

Improving the parking surfaces that are central spaces

Improve public transport connection



 ${\sf FIG.\,1.97\ Axonometric\,view\,of\,the\,urgencies\,detected\,in\,the\,topic\,of\,\,Technology\,and\,\,Networks\,}$ Source: made by author.







Urgencies:

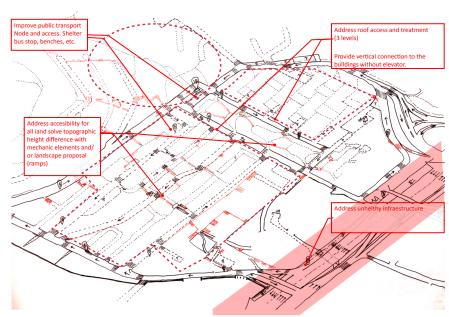
Roofs are becoming the hidden space to support mechanic machinery

Better integration of unhealthy networks that creates negative externalities.

Address the heigh levels, better accessibility (inclusion), mechanis.

Improving public transport in relation to accessibility and topography.

Provide vertical accessibility (elevator) in buildings

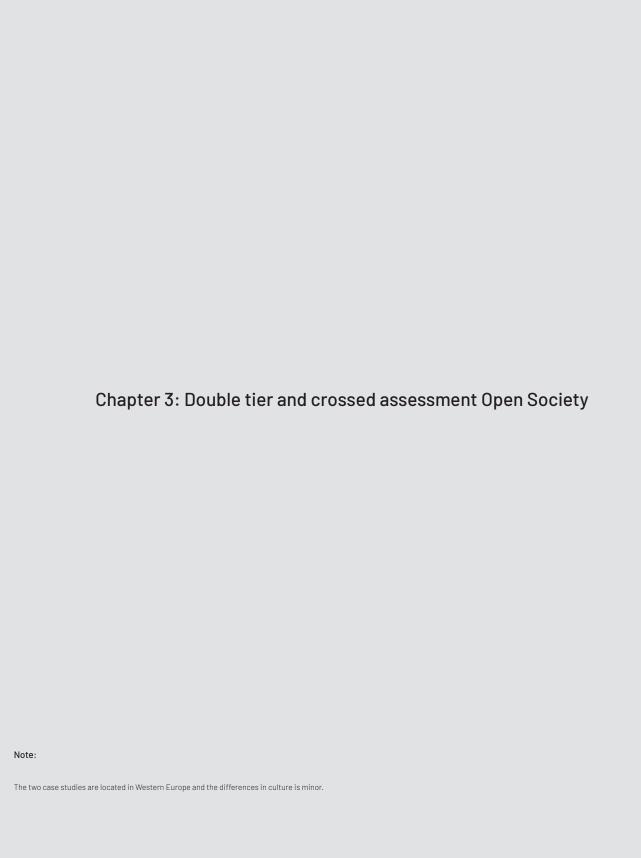


 ${\sf FIG.\,1.98\ Axonometric\,view\,of\,the\,urgencies\,detected\,in\,the\,topic\,of\,\,Technology\,and\,\,Networks\,} \\ {\sf Source:\,made\,by\,author.}$

Part I

Theoretical and empirical revision

concept of Open Society



Conceptual assessment

CONTRASTING PRINCIPLES (UN habitat charter III, SDG



FIG. 1.100 From Global documents to local regulations for sustainable and resilient urban development. Source: www.un.org / www.habitat3. org/

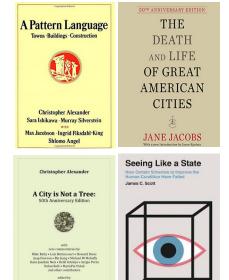


FIG. 1.99 Critiques to revise the principles for Total Urbanizacion (Open Society)
Source: www.amazon.com

	IDENTITY:	
İ	INDIVIDUAL COMMUNITY-COLLECTIVE GLOBAL-UNIVERSAL	UNIT-BLOCK STREET
SELF REALISATION Morality, creativity, spontaneity, lack of prejudice, acceptance of fact, problem solving	49The influence of incorrectly designed or well-designed space on human life has hardly been studied Yet we still speak of oppressive-liberating – messy – orderly – dull – vibrant – monotonous (CR-CA) 53Man builds not only to protect himself in his existence, but also to learn to live in good harmony with experience and to become aware the laws of existence, or, if you wish: to become aware of the mirade of existence. In usl so of space 55Where some of us once thought were angels, we now see traces of jet fighters, but there are more wonders to come Marvelling at space is an essential aspect of human happiness and is partly determined by the way we use space. In this case, the being off life and having off life" by poet Ed. Hoornik may also mean: wanting to be in space and/or wanting to have space. 61More important: than increase in this knowledge, it appears to me, is a recognition of the architect-in-everybody. (CR-IJI)	42Outside the energy lines a monature and buildings, depending of 44Better harmonization between 54The photos taken from the Mitelescope of Dwingelo widen our significant of the photos taken from the Mitelescope of Dwingelo widen our significant of the photos taken from the Mitelescope of Dwingelo widen our significant of the photos of the phot
RECOGNITION Self-recognition, trust, respect, success	46-Compare the silhouette of a former Zuiderzee town with that of our new urban expansions Such an new skyline can appear chaotic or oppressive, but also controlled and expanding. Space can feel too congested, but also with ant and informative (CR-IJ) 52-There are: 3 questions of human existence What am I?, Who am I?, where am I? If existence is a state of energy, of which man form a part through his ability to become aware of his participation in that state of energy, then these three question acquire new significance in architecture and urbanism. Of the What , who and where am I?, the last of these is also partly answered by a spatially well-designed environment. 59-The present and past is a time of production and exploitation. It was preceded by the medieval city of religion and defence. The bult signs of it are still dearly visible to us in our dities with, successively, medieval steeples, remnants of ramparts. 62-Everyone possesses some basic sense of what to him is a fitting space, but he has often been discourage from using it (by making allotment garden sheds identical for instance)	5Possibilities to compare various in 33Occupant participation in designed the kind of living environment needs
LOVE AND BELONGING Friendthip, affection, sexual intimacy	21Maintenance carried out as much as possible by the residents themselves. Select window type etc. with deaning mind. 47Do we still make plans that respect space or do we treat space violently and aggressively? Think of the only flower in "The Little Prince" (de Saint-Exupéry)	61There is an increase (albeit in of thus slightly greater in sight into the
SAFETY physical, resource occasifion, mostly family, health, private property	11in arranging groups of dwelling, do not fell trees, do not demolish useful building and, if possible, use existing nature with its height difference, etc. (NUA-hab III) 43in general: developing agatial awareness as an elementary subject in primary and secondary schools. For the era of total urbanization, this is just as important as reading, or at least important as sexual education.	3-Simultaneous contact with both 8-Smooth transition from private to 13-In arranging groups od dwellin combining higher and lower buildin 51-Adelbert Ames (1919 (published 4-Orientation possibilities within t location of high- and lowerse buildin
PHYSIOLOGICAL NEDS Breathing, feeding, rest, sec, homeostasis		7. Various kinds of activities as do working, shopping and leisure (NU 38For instance, shops for veget organized as convenience stores, F 51An elementary human need is today and tomorrow, determining

Aligned Neutral Critized- failed

CLUSTER/HABITATS

(NUA) New Urban Agenda - Habitat III (CR) Critiques: Jane Jacobs(JJ), James Scott (JS), Cristopher Alexander (CA)

MOBILITY / NETWORKS SYSTEMS

, critiques, etc) ASSOCIATION/INTERSCALARITY

ASSOCIATION/INTERSCALARITY	CLUSTER/HABITATS	MOBILITY / NETWORKS SYSTEMS	
GLOBAL-UNIVERSAL NEIGB DISTRICT-CITY CITY-REGION	BUILT FORM DAILY LIFE FUNCTIONS BIORYTHMS SEASONS	NETWORKS NODES	
improvised, scout-like and spontaneous adaptation to existing the situation. ban and architectural work. on, the signals we picked up from astronauts or in the radio tital awareness. ent complete urbanization, we need new relationships between accewill increasingly have to be maintained publically, Land is no ass. How is that possible? For what about the space above it?	36More linear extensions instead of the usual concentric ones (often based on obsolete forms of defence or on outdated municipal boundaries politics). 9Space for unforeseen dircumstance inside and outside the home, for instance hobby+study, space+music. 12Create wooded areas on disused agricultural land, so that in 20 years' time they can become important wooded residential areas. 57Designing a wall of houses or group of houses is then a matter of determining shopping, parking, agoing to school -(public) transport at the same time. This can to be done through scale and function – coordination – zoning (the work of S.A.R., Architect's research foundation)	58Our present time and the time and the time ahead will probably be chiefly characterized by communication – automation – playful use of time. This was evident in, among others, Charla 1970's Dutch section with its communication machine	
nds of living at an orderly scale. (NUA-hab III) .methodology, so that a wider circle is involved in deciding on ed. (NUA-hab III)	16In the neighbourhoods, apart from the usual amenities such as consultation offices, medical centres, etc. in particular also seniors club and exhibition space – the multipurpose building-(Dronten)	6-Equality in level of public and private transport. 8-Smooth transition from private to public	
os and drabs) in knowledge of human patterns of behaviour, and need for spatial quality. (CR-CA)	17Basic open-air swimming polls in every neighbourhood (5 to 10 min walk), temporarily covered and heated in winter. Shouldn't cost more than 200,000 guilders. Maybe build fewer official swimming pools for 400,000 guilders? Also include sauna and other body treatment facilities. 31It should be possible to keep pets near and in dwelling: pidgeons – dogs – cats – hamsters; and of courseplants too. 34Spatial variety within the house for example through variations in bay width and use of split levels	29Mutual accessibility on higher floors of closely grouped high-rise blocks. The "tridge streets" for deliveries + visits to neighbours.	
ban space and landscape. (NUA-hab III) subblic. s, take the privacy of residents into account, especially when some subsection of the second second separately when some subsection of the second se	1Choice for various forms of Housing (NUA-hab III) 2Possibility for occupants to alter and extend the dwelling during use. Adapting to seasons (being able to use a balcony in winter or a camper as an extension of your home) adapting to changes in age groups. 15Within groups of dwellings Safe playgrounds and kindergartens. 27 No small one-person bedrooms, but ample space in every tooms by our can reposition the dinning table, the seating area and the television set within the home. 32Apart from ordinary cupboards (preferably moveable), sufficient storage space for winter dothing, sutcases, Christmas tree decorations and camping gear. 35Sufficient acoustic materials to absorb sound from television. 40Permanent experimental neighbour-hoods in every region (5% extra budget for annual 5% of total state construction volume in the form of experimental construction?)	10A dwelling no more than 5 min walk from a public transport stop.(canopy) 14Enclosed galleries in high-rise blocks to prevent drafts at front doors. 20Car wash and do-it-yourself repair facilities. 30No vehicular traffic through neighbourhoods.	
ely related to one another as possible, such as living, education, whab iii) cles – bread – milk – groceries – magazines – newspapers – ur together under 1 roof (500-1000m ² ?) the ability to compareone with the other,yesterday with location: Knowing where you are	19. Houses for the handicapped, distributed over every neighbourhood of 200 dwellings each (7500 people) 26. Space for solar shading outside or inside designed in advance. 23. Kitchen and bathrooms large enough for electrical appliances such as dishwasher, washing machine, driver, etc. 24. Two toilets, one separate and one in the bathroom, for every family of 4 people. 35. Sufficient acoustic materials to absorb sound from television.	39-Urbanization along (not against) new regional energy lines, partly formed by the new roads. 41. Strong and strictly organized construction within the energy lines. 42. Outside the energy lines a more improvised, so out-like and spontaneous adaptation to existing nature and buildings, depending on the situation. 45. Resides care for soil, water and air, people should become aware of a controlled us of space, design starts with the purchase of land for the social use of space. 49Air and water we may be able to purify at some point, but how can we remove incorrectly positioned structures at a time when we are still not building enough houses?	

Empirical assessment

Case study 't Hool, Eindhoven, NED.

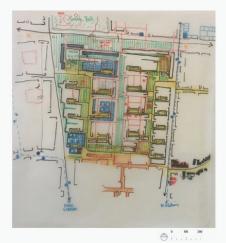
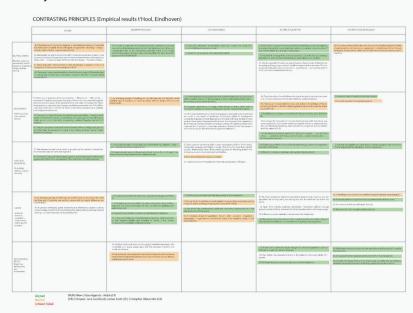


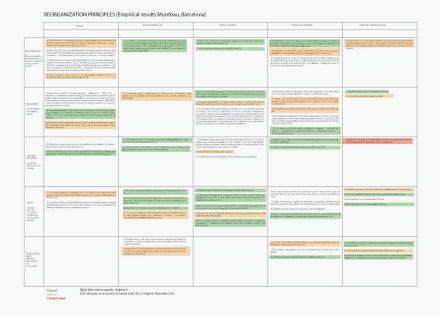
FIG. 1.102 Conclusion plan 't Hool, Eindhoven. Source: made by author.



Case study Montbau, Barcelona, ESP.



FIG. 1.101 Conclusion plan Montbau, Barcelona. Source: made by author.



Comparison empirical results

*Evaluation criteria:

Green: To score "success" the proposal have to be achived succesfully at first or by later improvement, achiving full spatial qualities and performance in relation to the principle. Example: A very clear example is that the architectonic quality of the proposals are extremely high for that time and now, with very well executed and intelligently spatial solutions and choice of material. We can state that the relation between urbanism and architecture is solid and equilibrated.

Yellow: To score "neutral" the proposal at first can be failed or incompleted and by later improvement, achiving partial spatial qualities and performance in relation to the principle, there's still room to improve and get full potential. Example: In both cases the comunication networks at that time were maybe not feasible and expensive, today we have a hyperconnectivity but still don't have access to all data and information. This can be improved with technology and living labs.

Red: To score "failed" the proposal at first can be failed or did not address it, not achiving any spatial qualities and performance in relation to the primciple, there's still room to improve. Example: In the case of Montbau the project never proposed bridges between buildings or the 3 levels of living and (three main parts of the building), thus today we see potential of that to build complex buildings.

The evaluation have taken in consideration as important impact the starting point and project and development of the projects but have been heighted with the critical take that time and evolution of this places and people have managed to addressed during the time being until today, including the current projects.

We have seen also, success decisions in the beginning that later on, have devalued the result. It has been observed that the amount of successes are quite some, reaching around 50%, maybe we can attribute this success to the perfect match (users, professionals and institutions)

Group 1 - Ecology: (n.11,45,49) In this group we can see the different sensitivity (caring) of the professionals towards history at that moment. The social concern of liveability was more important than the ecological concern and we can see it in the politics of that time. Now we have, more awareness, new methods, new approaches and technologies that can help address better.

Group 2 Civic-culture: (n.7,38) The cultural tradition linked to many values, social, climatic, economic have impacted in the models in which we can see two different models of treating function.

Group 3 Association: (n.5,61) The insufficient knowledge on behaviour and b. environment at that moment was not enough to deal with the principles.

Group 4 Accessibility and ownership: (n.2,29) The accessibility problem of certain spaces was dealt with simplicity due to policies. Now that we have technology and more comprehensive frameworks and regulations we can rethink those spaces in terms of access and ownership.

Group 5 - Technology: (n.58) The technology at that time was not that developed and some technologies were not economic feasible. Nowadays we have access to a lot of data and technologies to tackle, social, environmental and economic healthy approaches.

Conceptual assessment (Frameworks, critiques)



Empirical assessment ('t Hool, Eindhoven, NED)



Empirical Assessment (Montbau, Barcelona, ESP)

Comparison Concept-Empiric

The gap here is visible between ideals and reality because the principles can be translated into patterns. However, in the way are formulated

Some principles are meant for the Western Society of the 1960s, and the way and values of living in Europe as a modern society. However, today we encounter in those cities the effect of globalization (many cultures living together) and the different need of the society of the XXI century, it seems that most of the principles are aligned with today's discourses and critiques however, it would be worth while re-thinking it from a subaltern perspective.

It has been difficult to measure the validity of the principles, there's no assessment framework or descriptions/instructions on how we can measure. They are principles, not theoretical or operational framework.

The ecological concerns are not the emphasis of the principles, but rather a consequence on the way we live in this planet, not caring enough the planet, neither "the others".

The apparent simplicity of the principles (many interrelated) is a sign of the complexity of the understanding.

Explain difference between concept and practice

Shortcomings because of adjustments related economic feasibility, politic decisions, etc

Conclusions

('t Hool-Montbau):

*Scope:

This study has been carried out from a current view of 2021 on the concept of Open Society (64 principles) introduced in the 1960s and the projects carried out (Welfare State and internationalization process) that showed strong social and experimental wills. Due to the short time, the study area focuses only on the project and immediate context (1,5km x 1,5km), although a broader study could be done and include the territory. In addition to the exhaustive study of the proposals in their time and the current situation, the transformations and improvements that have occurred in this time gap are also considered.

Three main themes: cultural and place differences, temporal differences (technology) and political differences and land ownership.

Adjustments that were made in the process that affected the final quality and fulfillment of the objectives

Large amounts of open space that can be reused for other purposes or functions

The large roof areas were not programmed, (Jan 5 facade - life above, between and below the trees)

Transitions public-private space (intermediate-threshold spaces)

Good relationship between architecture and urbanism

Part II

Discursive articulation

for a Contemporary Open Society

("Gaia" Planetary communities)

Chapter 4: We live together, therefore we should work all togheter towards common evolutive vision.	sa

Instruments: Vision and frameworks

We live together, therefore we should work all togheter towards a common evolutive vision.

In 2030-2050, the modern project developments will be updated to better align with the contemporary discourses and projects of Planetary Society, Sustainable Habitation, and cohesive global-local politics and economies.

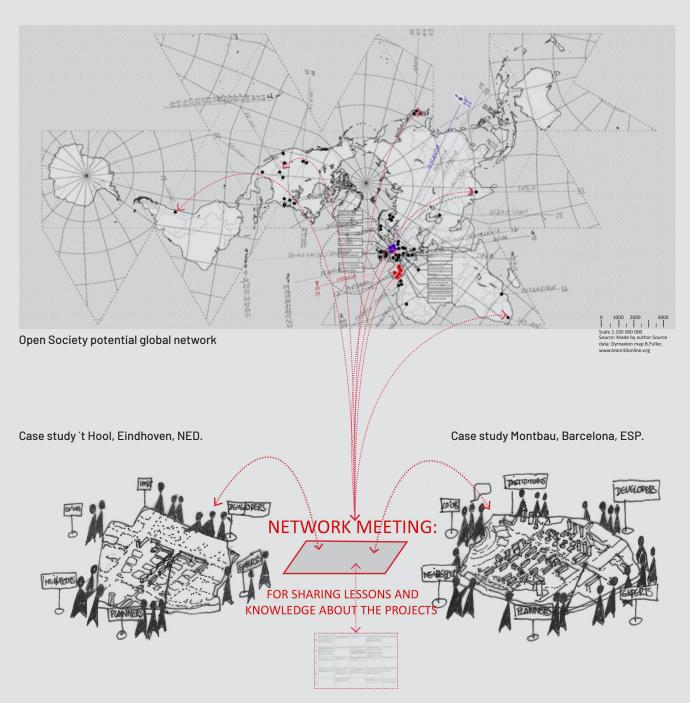
Promoting a diverse, inclusive, accessible, sustainable and collaborative urban development where all living being can flourish.

What would Bakema and Subias do if they would need to update 't Hool and Montbau to the necessities of today keeping the experimental and innovative character of the proposals?

Assesment framework (Open Society and The good life, Housing 50-70's)

	HSTORY	GEOGRAPHY ECOLOGY	SOCIO-ECONOMICS	D FORM, SCREE MATTER	NETWORKS AND TO INDUST
SEEFRALISATION Monthly couldn'ty, ever-least, just of particularly, last of particularly construction of fact problem.	But have been a framework playing and any of the size on his point, but the state of the control of an of queries of quer	As some in cape which is interest mapping understand, we would not be a considerable production of the considerable production of the considerable production and the considerable production of the considerable product	Volgan in unformere commons in the and assists die from, for introducible films (source). 1-Oversite value former of fiscency (ISAA d.B)	A Besselling of a recognition after an electric for authorizing the beginning in the property of the property	No. Of a remove these of the time of the re- wheat of limited by limited and a second of the control of the removal of the control of the con
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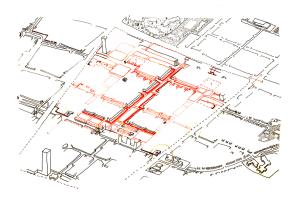
FIG. 1.103 Assessment framework for the practice of the good life in a Open Society Source: made by author; Data source: Pyramid Maslow, (64 principles) Bakema and the Open Society (2019) D. Van de Heuvel.



*Note: This statement shows an example of creating a general vision. To generate a specific vision should be talked and worked with the users and owners of the site and serve as a guide and goal to focus the development towards this vision. For now the works has been done to inform the users and authorities to the urgencies detected and the possible articulation into the current discourse.

Material: Urgencies

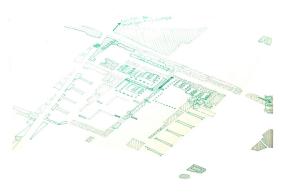
Social, economic, evironmental't Hool:

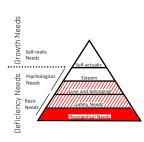




Urgencies:

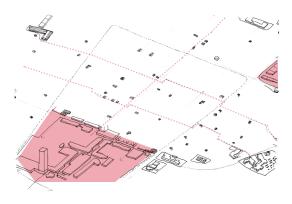
- More knowledge and educational centers
- Improve the digital network platforms to communicate better the historical value of the proposal.
- Reconecting and articulating the historical landcsapes(within and outside) with treatment of public space.
- Improve the signage and emphazie the cultural place of the neighbourhood with activity and treatment of public space.





Urgencies:

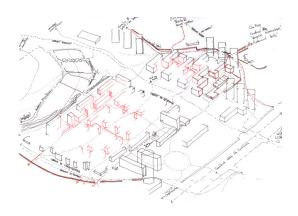
- Ecological programs supporting social cohesion and well-being.
- Improve quality of water and soil, mitigation treatment
- -Connect surface and subsurface
- Sistem treatment of water cycles..
- -Water reservoires and retention pools (public space in relation to weather)
- Improve biodiversity and cohesion with ecological structure.
- Reduce Energy consumtion





- Create knoweldge local centers
- Social farming and social programs
- -Improve civic structres (front+activity)
- -Promote small production centers and services, digital and artisans.
- More mix functions and mix-use buildings
- -Mix more tenures

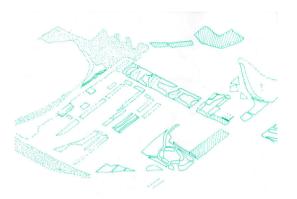
Social, economic, evironmental Montbau

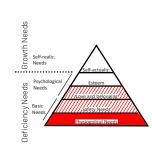




Urgencies:

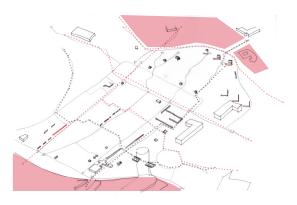
- Reconecting and articulating the historical landcsapes(within and outside) with treatment of public space.
- Improve the signage.
- More knowledge and educational centers





Urgencies:

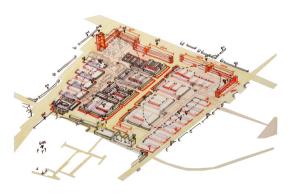
- Ecological programs supporting social cohesion and well-being.
- Improve quality of water and soil, mitigation treatment
- -Connect surface and subsurface
- Sistem treatment of water cycles..
- -Water reservoires and retention pools (public space in relation to weather)
- Improve biodiversity and cohesion with ecological structure.
- Reduce Energy consumtion



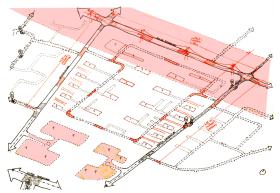


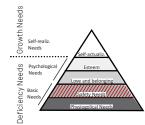
- Create knoweldge local centers
- Social and collaborative economies
- -Promote small production centers and services, digital and artisans.
- More mix functions and mix-use buildings.
- Create more types of tenures.

Social, economic, evironmental 't Hool:







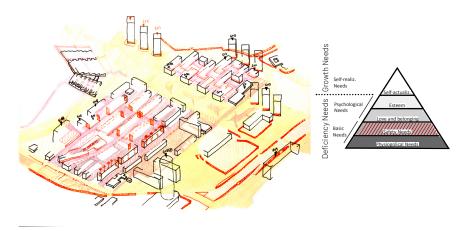


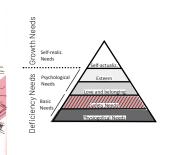
Urgencies:

- More diversity in tenure (types-social level)
- Use and multiprogramed roof, aboid residual spaces
- Improve quality of space (public space treatment, fronts, visibility, etc)
- -More Density, new typologies.
- -Better landing groundfloor (Big blocks) and introduce attique levels (live above, betwee, under the trees)
- -Renovate materials (re-use) and follow regulation historical regulation.
- -Improve termic an acustic performance facades.
- New form typologies (hybrid)

- Improve spaces parking as a centrales and encourter
- Improve roof space or hidden engine spaces
- Treat unheatlhy and negative externalities infraestructure.
- Improve security and accesibility pedestrian network.
- Improve públic transport

Social, economic, evironmental Montbau



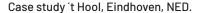


Urgencies:

- Increase diversity of tenure and housing types within a block.
- Use and multiprogramed roof, aboid residual spaces
- Create and improve civic axis (social needs and economic)
- -Activate blind facades
- -Better landing groundfloor (threshold) and introduce attique levels (live above, betwee, under the trees)
- -Renovate materials (re-use) and follow regulation historical regulation.
- -Improve termic an acustic performance facades.
- -New form typologies (hybrid)

- Improve roof space or hidden engine spaces
- Treat unheatlhy and negative externalities infraestructure.
- Improve security and accesibility for pedestrians, connect mechanicaly different heights.
- Improve public transport in heaviliy topographic difference.

Material: Urgencies



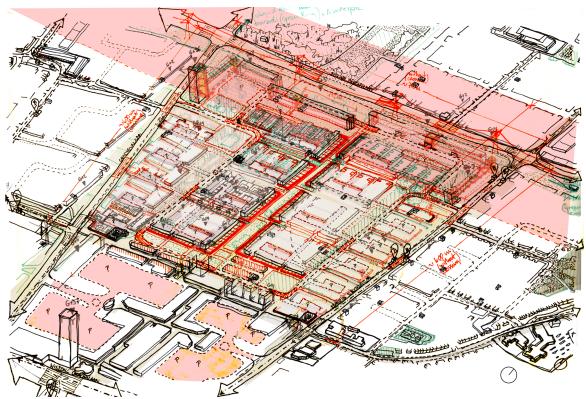


FIG. 1.104 Axonometric view of the urgencies in 't Hool, Eindhoven. Source: Made by author

CONCLUSIONS:

<u>Social:</u> Social spaces better treatment public space learning from Montabu, embrace complexity (3 levels above, between, under trees), more density and diversity in tenure and more inclusive (with respect) with heritage and other cultures, species, etc. Co-create together embracing the social and the experimental character of the proposal.

Environmental: Addressing unhealthy and negative externalities, protect and embrace ecological value of subsurface (quality of water, air, soil). Find alternative models of production-consumption and implement the energy transition in those sites with sensitivity. We can see that some decentralized systems have been implemented in the cooperative owned part. Thus, all the effort in this matter due to the high consumption of energy and the water cycle, drainage system, and combining hard technological solutions with nature based solutions. Treat critical areas in relation to the ecological structure.

Economic: Promote local and global knowledge-economies related to health and sustainability, recycling, arts, local services and ecosystem services. For that need for robust, sustainable and clean networks and mobility, therefore we need a more hybridity models of mobility, in other words: Promote more public transport, more compact and multilayered development were the citizen can have everything for living within a walking distance. Interwaving better the different types of network and provide intelligent spatial articulations (3D) to guarantee their connectness.

FIG. 1.105 Axonometric view of the urgencies in Montbau, Barcelona. Source: Made by author

CONCLUSIONS:

Social: We detect clustered morphologyes with a spark of diversity in terms of variations (split-level) and few typological variations. We suggest to introduce more diversity and complexity by following the methodological approach of 't Hool (Van Esteren) and the three levels of living (above, between, under trees, Bakema), more diversity in tenure and more inclusive (with respect) with heritage and other cultures, species, etc. Co-create together embracing the social and the experimental character of the proposal.

Environmental: Addressing unhealthy and negative externalities, protect and embrace ecological value of subsurface (quality of water, air, soil). Find alternative models of production-consumption and implement the energy transition in those sites with sensitivity. We observed that some renovations in matter of envelope of the buildings have been done and are some currently on going. Thus, we have to make an effort in this matter due to the high consumption of energy and the water cycle, drainage system, by combining hard technological solutions with nature based solutions.

Economic: Promote local and global knowledge-economies related to health and sustainability, recycling, arts, local services and ecosystem services. For that need for robust, sustainable and clean networks and mobility, specially in relation to topography. Interwaving better the different types of network and provide intelligent spatial articulations (3D) to guarantee their connectness.

Material: Urgencies and Potentials

Case study 't Hool, Eindhoven, NED.

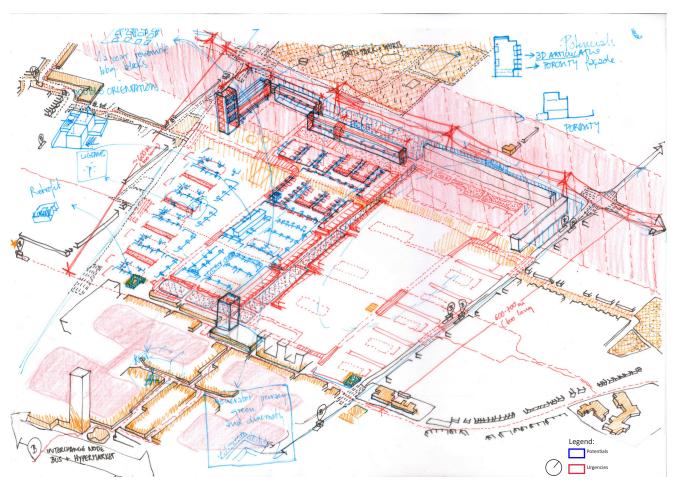


FIG. 1.106 Axonometric view of the urgencies in 't Hool, Eindhoven. Source: Made by author

Observations:

It has been found many patterns arise as specific prototypes for the site that we have to catalogue to re-use this types of spatial arrangements that are of high quality dealing with the complexity of the site (topography, culture, social aims, organization and development, etc.)

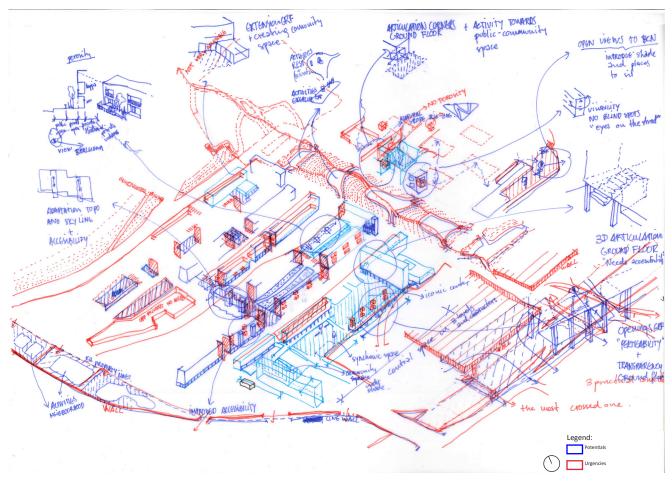


FIG. 1.107 Axonometric view of the urgencies in Montbau, Barcelona. Source: Made by author

Most of them has a high value in spatial quality and constructive quality. Moreover, the sense of belonging is very palpable among the inhabitants with all the projects, events, collective force of the community.

Some prototypes related have been seen as a reaction of the users to utilize space, policies and projects of redevelopment and collective interventions (not all of them are visible since there's much programs and projects related to organization matters).

Agendas

Agenda 't Hool, Eindhoven:

Hardware: (Human - Natural habitat)

- The ecological (habitat diversity), social (cultural, generational, etc.) and legal (individuals, groups, cooperatives, private, public) diversity must be increased.
- Heritage as driver of urban redevelopment. Protect, safeguard heritage.
- Improve territorial cohesion (permeability and connectivity). Eliminate possible physical barriers: walls, valleys, topographic differences, large infrastructures, and large surfaces services etc.
- Strengthen the knowledge economy linked to physical and mental health: living labs, fab labs, social projects aimed at the most vulnerable in the neighbourhood.
- Increase built density strategically according to scales, networks and intensity points (guidelines) (suggestion to further study space syntax+spacematrix) as well as typological hybridation.
- Expansion and endowment of public education and cultural centers:
 Library, old people's home, youth center, vocational training center,
 etc.
- Encourage the use by provide access and visibility of residual spaces such as roofs, opaque facades, pocket spaces, and others. Opportunity to work with urban complexity in height (3 levels, above, between and under trees, Bakema)
- Protect and embrace ecological value of subsurface (quality of water, air, soil).
- -Promote alternative models of production-consumption and implement the energy transition and water management in those sites with sensitivity, combining hard technological solutions with nature based solutions.

Networks: (Human networks- Natural networks)

- Improve accessibility to the neighbourhood, more inclusive for all. Save topographic differences with mechanical elements (escalators, elevators) or ramps.

- Improve the treatment of public space and environmental awareness, make the effects visible. (sensors, artwork, etc.)
- Spatially solve the intersections (with the user as the center of the interventions), solve volumetricall
- -Reduce the negative externalities produced by the networks: rolling, energy, water collection, garbage, etc.

Software: (coding)

- Increase re-strengthening of legal diversity (individual, collective, cooperative, private and public).
- Social programs in the neighbourhood: social farming, ecological awarnes program, cradle to creade business, artesanal fabrication and repair shops, art workshops, etc.
- -Program and local resource reuse center: clothes, furniture, appliances, etc.
- -Promote activity along the civic structures depicted (guidelines)

Procedural:

- Networked program Open Society and (Post-war housing developments), brother cities.
- Co-create together embracing the social and the experimental character of the proposal.
- Use toolkit (catalogue, materials, methods, tools and mechanisms) to operate while engaging in the process to offer possibilities using design as a tool to communicate, reserach and imagine possible futures. Provide feedback using assessment tool.
- Use guideline as strategic stratucture not a blueprint. Be critical
- -Fesability studies and pilot projects.
- Be engaged and committed, coordinate urban process with professionalism, empathy and willing to dialogue to achive agreement.

Agenda Montbau, Barcelona:

Hardware: (Human habitat - Natural habitat)

Increase diversity: ecological (habitat diversity), social (cultural, generational, etc.) and legal (individuals, groups, cooperatives, private, public.

- Improve territorial cohesion (permeability and connectivity). Eliminate possible physical barriers: walls, valleys, topographic differences, large infrastructures, etc.
- Strengthen the knowledge economy linked to physical and mental health: living labs, fab labs, social projects aimed at the most vulnerable in the neighbourhood.
- Social programs in the neighbourhood: social farming, ecological awarnes program, cradle to creade business, artesanal fabrication and repair shops, art workshops, etc.
- Expansion and endowment of public education and cultural centers: Library, old people's home, youth center, vocational training center,
- Encourage the use, access and visibility of residual spaces such as roofs, opaque facades,
- Protect and embrace ecological value of subsurface (quality of water, air, soil).
- -Promote alternative models of production-consumption and implement the energy transition and water management in those sites with sensitivity, combining hard technological solutions with nature based solutions.

Networks: (Human networks- Natural networks)

- -Improve accessibility to the neighbourhood, more inclusive for all. Save topographic differences with mechanical elements (escalators, elevators) or ramps.
- Improve the treatment of public space and environmental awareness, make the effects visible. (sensors, artwork, etc.)

- Spatially solve the intersections (with the user as the center of the interventions), solve volumetrically e
- -Reduce the negative externalities produced by the networks: rolling, energy, water collection, garbage, etc.

Software: (coding)

- Increase the mix of housing types in each cluster (ways of life and social levels)
- Increase re-strengthening of legal diversity (individual, collective, cooperative, private and public).
- -Program and local resource reuse-center: clothes, furniture, appliances, etc.
- Social programs in the neighbourhood: social farming, ecological awarnes program, cradle to creade business, artesanal fabrication and repair shops, art workshops, etc.

Procedural:

- Networked program Open Society and (Post-war housing developments), brother cities.
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- Use guideline as strategic stratucture not a blueprint. Be critical
- -Fesability studies and pilot projects.
- Be engaged and committed, coordinate urban process with professionalism, empathy and willing to dialogue to achive agreement.

Instruments: Guidelines

Case study 't Hool, Eindhoven, NED.

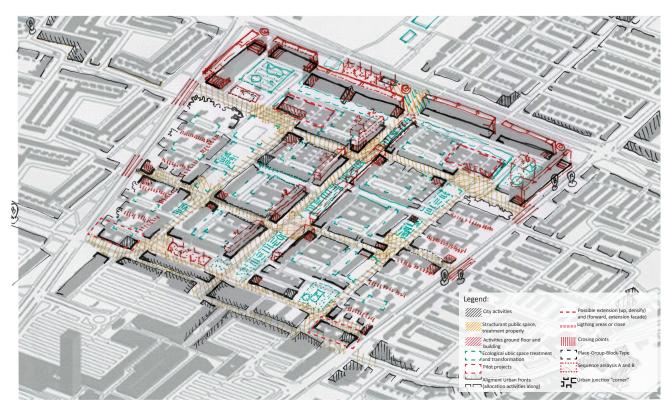


FIG. 1.108 Axonometric view of the the comprehensive guidelines in 't Hool, Eindhoven. Source: Made by author



Interweave better ecological and civic matrix and scales.

Articulate corners or crossings (with program, accessibility, continuity ground floor, form and density)

Activate roofs and connection with ground (3 levels: above, between and under trees connected)

Adapt public spaces related for better ecological perform and socially produced and used.

Update buildings for energetic transition, introduction of new housing typologies, improving accessibility and new programs.

Introduce and exploit remote technologies, sensing, communicating, etc.

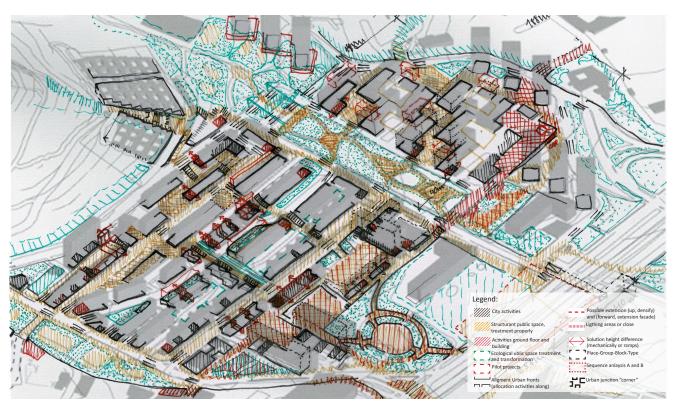


FIG. 1.109 Axonometric view of the the comprehensive guidelines in Montbau, Barcelona. Source: Made by author



Guidelines:

Interweave better ecological and civic matrix and scales.

Articulate corners or crossings (with program, accessibility, continuity ground floor, form and density)

Activate roofs and connection with ground (3 levels: above, between and under trees connected)

Adapt public spaces related for better ecological perform and socially produced and used.

Update buildings for energetic transition, introduction of new housing typologies, improving accessibility and new programs.

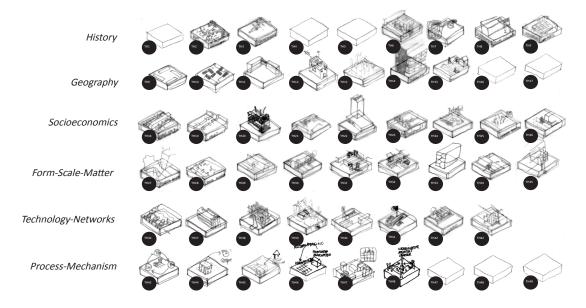
Introduce and exploit remote technologies, sensing, communicating, etc.

Material: Patterns

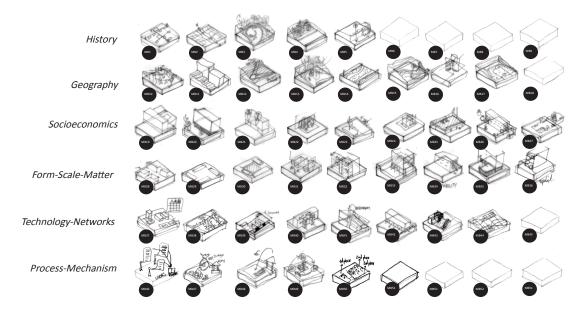
From Specific to Generic

Site-specific (found patterns) Patterns

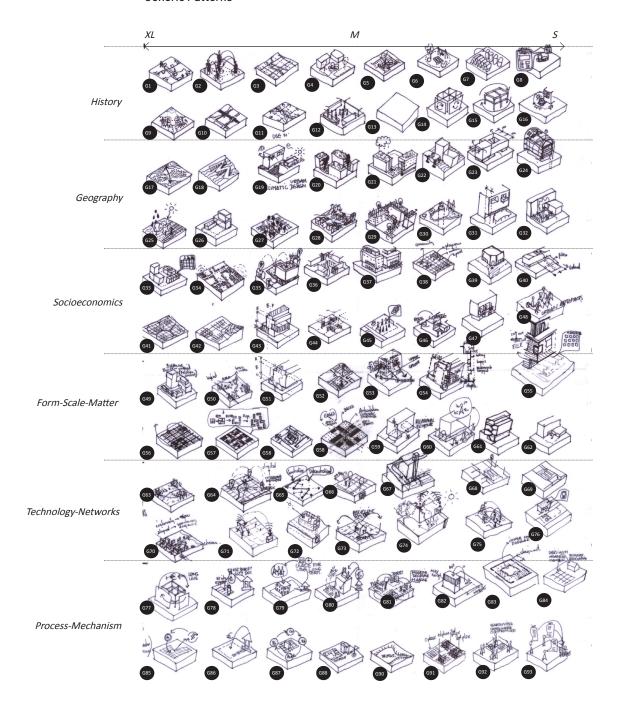
Case study Montbau, Barcelona, ESP.



Case study 't Hool, Eindhoven, NED.



Generic Patterns



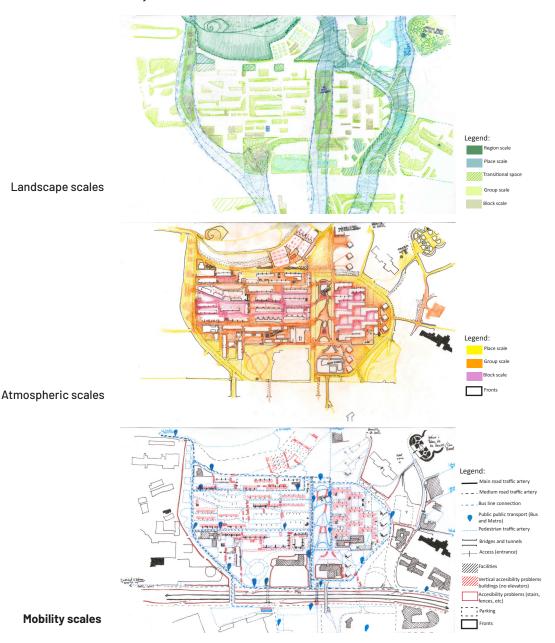
Catalogue materiality



The catalogue of materials is in process since the study of the materials of the site has been conducted briefly. The interesting part is how can we reuse the existing materials with a functions and aspects. However, it is important that the existing material artmospheres is very linked to the site and this is an important aspect to take in considerating it, as well as the technical constructive innovations. Mix of Local resources and mixed techniques, local and global.

Tools: Exploration suitability urgencies

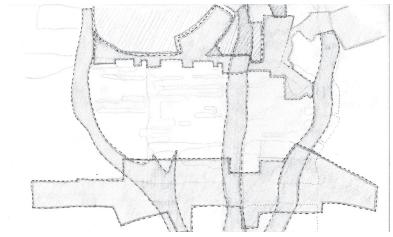
What would Bakema and Subias do if he would update 't Hool to the necessities of today?



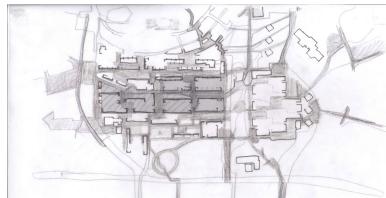
I imagine they would explore the suitability of the patterns to the scales of the three core topics: Social, Environmental, Economics. Starting by identifying the scales, add at the urgency layers and spacialized and finally the potentials to find the hot spots and the compatibility.

Tools: Exploration suitability urgencies

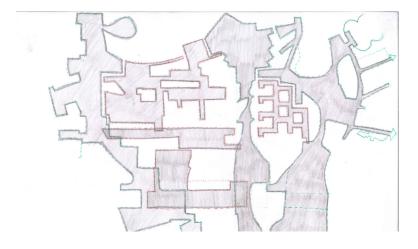
Urgency suitability aanalysis we use it as a indicator to detect the most critical points of the place and overlap with the potentialities to que the hotspot points of the city to intervene with urban acupunture among other treatments.



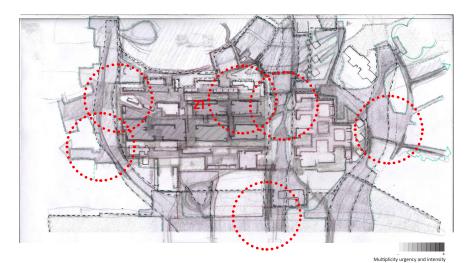
Landcsape scales



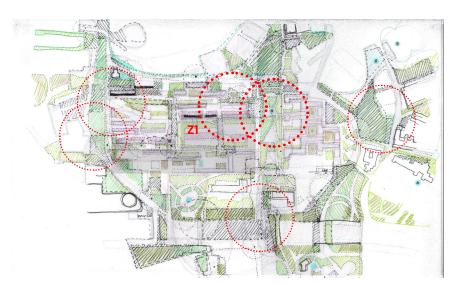
Atmospheric scales



Mobility scales



Overlaped urgencies



Overlaped potentials

Once the hotspots have been detected we zoom in one by one specifically and describe the characteristics found in the previous analysis.

We will zoom in one example to see how the urban accupunture is applied (useing the patterns developed) to unlock the hidden potential of the areas.

Sometimes, with the minimal intervention is possible to activate and sometimes need to be a critical reflection, meticulosly extract and replace sensibly what need to be replaced, with care and respect.

Co-design and Urban Acupuntcure

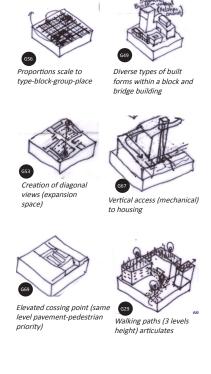


FIG. 1.110 Guidelines "Z1" Montbau Source: Made by author

FIG. 1.111 Isometric view of "Z1" zoom Montbau Source: Made by author

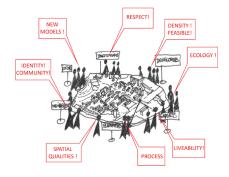


FIG. 1.112 The practice of co-design for an Open Society "environmentally and socially committed. Source: Made by author

The purpose of this method is to unlock hidden urgencies with the minimal intervention on the site. Requires deep understanding of the context and what is the lock or energy point which can improve the whole.

Zooming in, applying the patterns to the interventions it only has to intervene in some critical points to unlock the urgency and address the principles targeted.

The "pattern language is and essential tool to communicate in co-design process and can be assessed using the assessment tool design according to the conceptrual framework. (See example next page and Appendix chapther: "A Pattern Language").

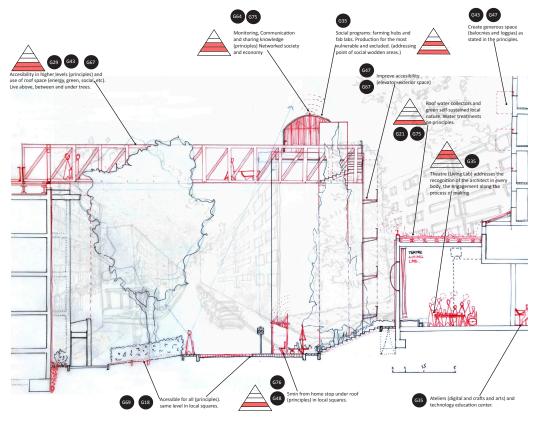
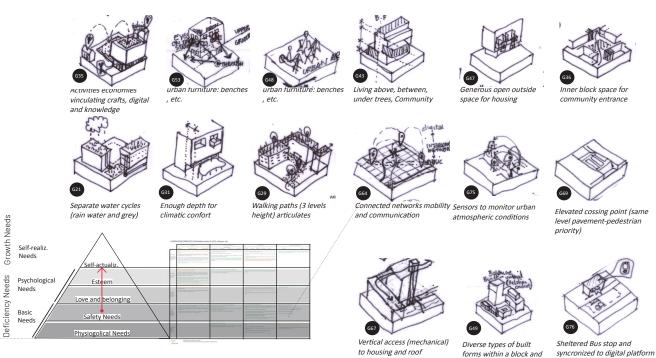


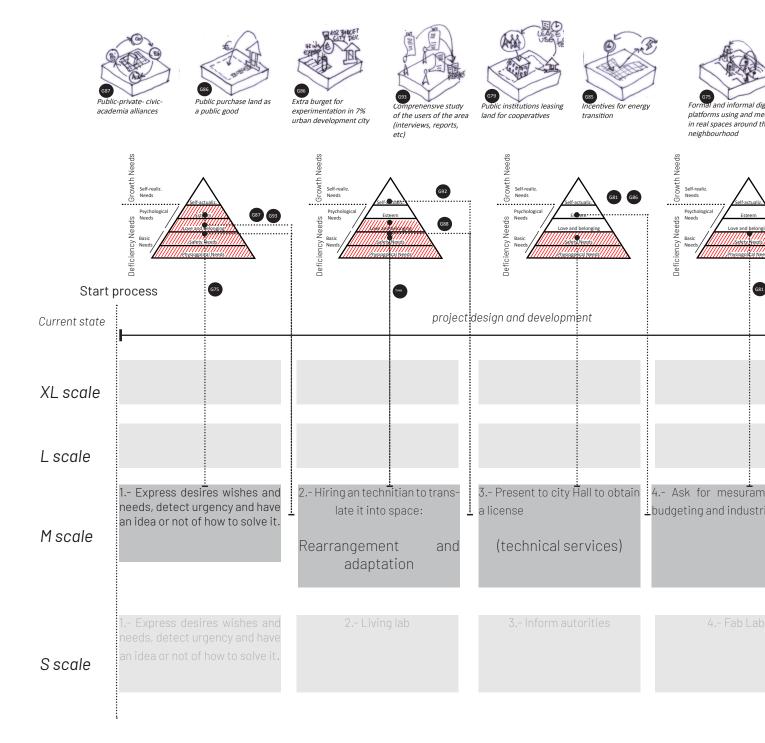
FIG. 1.113 Detailed section AA' applying the principles in Montbau, Barcelona. Source: Made by author



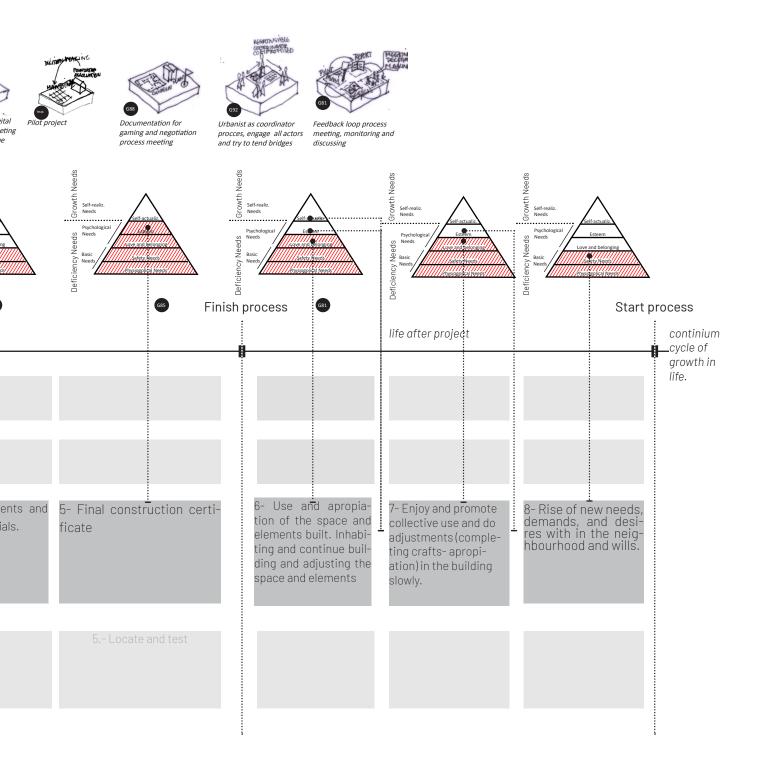
 ${\sf FIG.\,1.114.\,Assessment\,of\,the\,Open\,Society\,and\,the\,practice\,of\,the\,good\,life\,(applied\,patterns)} \\ {\sf Source:\,Made\,by\,author}$

bridge building

Mechanisms (procedural steps)



The patterns applied to the mechanism are meant to address the capacity of transformation (Scale-Actors) and level addressed in the Maslow Piramide. The site evolve as live evolve.



Manual of Best practices

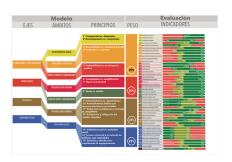
Ecological urbanism (Salvador Rueda): Clear framework and structure, indicators that allow to monitor, interesting principles.

Principios del Urbanismo Ecosistémico

Principles of Ecosystemic Urbanism



01	Compactness vs. dispension	06	Complexity vs. simplification	11	Reduce, reuse, secycle vs. waste
02	Descompression vs. compression	07	Hyperconnectivity	12	Adapting to and miti- gating the impact of climate change
03	Accessibility vs. private mobility	08	Green space vs. asphals	13	Social cohesion vs. social exclusion
04	Citizen vs. pedestrian	09	Self-sufficiency vs. dependency	14	Universal access to housing in reaso austainable buildings
05	Habitability in public space	10	Water self-suffi- ciency with nearby and research research	15	Balanced resources and distribution of facilities



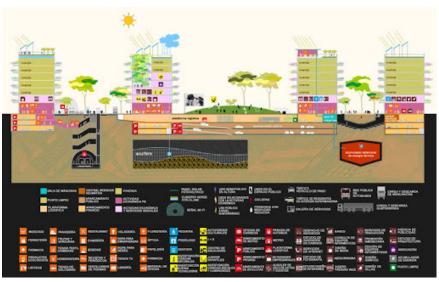


FIG. 1.115 Principles, assessment indicators and frameworks of Ecological urbanism Source: http://urban-e.aq.upm.es/articulos/ver/el-urbanismo-ecol-gico/completo (data source: department urban ecology ajuntament Barcelona; Salvador Rueda)

Urban process. (Arenas, Basabe, Palacios)



 $FIG.\,1.116\ \ Participatory\ process\ proposal\ in\ Wildgarten\ urban\ development,\ in\ Viena,\ Austria\ (Winner proposal\ in\ Europan\ 10)$

Source:www.arenasbasabepalacios.com

Manual of Best practices

Co-creation process and methods best practices
Methods: Pattern Language (C.Alexander) and RSVP Cycles (L. Halprin)

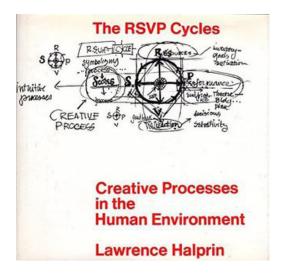


FIG. 1.119 Halprin, Lawrence (1970). The RSVP Cycles: Creative Processes in the Human Environment. G. Braziller. Source image: amazon.com

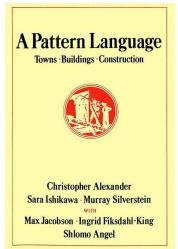


FIG. 1.118 Book cover Alexander, C (1978) A Pattern Language. Oxford University Press Inc Source image: bol.com

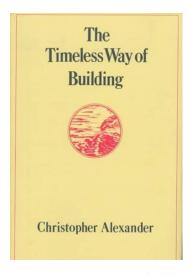


FIG. 1.117 Book cover Alexander, C (1979) The timeless way of Building. Oxford University Press Inc Source image: bol.com

Urban Living labs Amsterdam

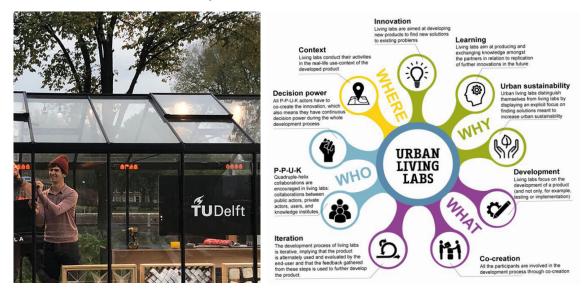


FIG. 1.120 Urban Living Labs provide a co-innovative setting, in which multiple stakeholders jointly test, develop and create metropolitan solutions. Source image: www.ams-institute.org

Fad lab and local digital production best practices (Ajuntament Barcelona)



FIG. 1.121 Ateneos de fabricación: cuando la innovación social digital transforma el territorio Source: https://ajuntament.barcelona.cat/digital/es/blog/ateneos-de-fabricacion-cuando-la-innovacion-social-digital-transforma-el-territorio

Pilot projects and tactical urbanism best practice (Superilla 22@ and Salou)



FIG. 1.122 A series of tactical urbanism operations has pedestrianised a "superblock" in a pilot test of a future large-scale strategy for reclaiming public space. Source image: www.publicspace.org (Area d'Ecologia, Urbanisme i Mobilitat. Ajuntament de Barcelona)



FIG. 1.123 Prova Pilot - Salou d'Estiu. LoCa Studio Arquitectos Source image: www.archello.com(Adrià Goula Credits Photography)

Manual of Best practices

Public space best practice

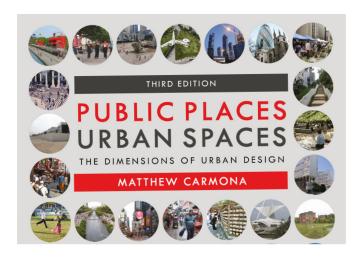


FIG. 1.124 Coverbook Carmona, M. (2021) Public places, urban spaces. The dimensions of urban design. Routledge Source image: screenshot e-book



FIG. 1.125 Superkilen, Copenhagen (BIG architects) Source image: Carmona, M. (2021) Public places, urban spaces. The dimensions of urban design. Routledge











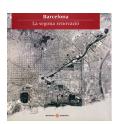














FIG. 1.126 Collection of bibliography of the course Public Space about Barcelona urban transformation. Source image: Lectures public space Barcelona (2020)(credits: authors of original publications)

Roof activities and mobility best practice (Rotterdam, New York)



FIG. 1.127 The New York City Highline by James Corner de Field Operations y Diller Scofidio+Renfro in 2014. Source image: www.arquine.com (image credits: Iwan Baan)



FIG. 1.128 The roof field plan is part of the larger project, the Testsite Rotterdam. This is a multi-year project of the International Architecture Biennale (IABR) and the architectural firm ZUS. Source image: http://www.daktuinen.nu/rotterdam-dakakker/

Reference Best practices

Dealing with existing and regenerating area best practice (J. Sabaté, Peter Rich, etc.)

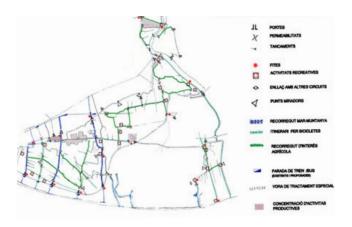


FIG. 1.131 Parque agrario del Llobregat. Intinerarios y elementos de interpretación Source image: ://cafedelasciudades.com.ar (image credits: Joaquín Sabaté Bel)

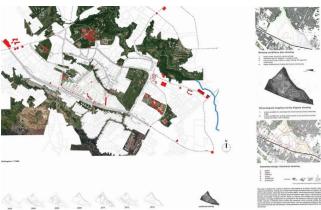


FIG. 1.132 Ecological regeneration dumpsite Repi park (overlapping strategies) (2014) Peter Rich, Greeinc Landscape architects, Juan Sanz, Gisela Morera Source image: authors design

Dealing with existing (updating, reusing) best practice (Lacaton Vassal, Flores&Prats, etc.)



FIG. 1.129 Before and after transformation of modernist block in Cité du Grand Parc, Bordeaux, France. By Lacaton&Vassal in association with Frédéric Druot and Cristophe Hutin. Source image: archleague.org (image credits: Philippe Ruault)



FIG. 1.130 Sala Beckett. Performing arts center, Barcelona, ESP. By Flores&Prats architects (2014) Source image: www.plataformaarquitectura.cl (image credits: Adrià Goula)

Dealing with existing (reusing) social furniture projects best practice (Curro Claret)





FIG. 1.133 Collection of chairs made with "the piece" and another auxiliary element designed to allow adding a backrest. The chairs have been made with the help of different people who, from their different fields and with the resources and materials of each one, have participated in different ways.

Source image: www.curroclaret.com/ (image credits: Juan Lemmus)

Dealing with existing (reusing) social urban projects best practice (I. Chinchilla, S. Cirugeda, etc.)



FIG. 1.134 Izaskun Chinchilla Architects' Organic Growth Pavilion Opens on Governors Island Source image: www.archidaily.com/ (image credits: Sergio Reves)



FIG. 1.136 Repurposing dumpsters acquired through the local planning department to occupy the street. Source: recetas urbanas/ (image credits: recetas urbanas)

Dealing with existing (reusing) Architecture-material projects best practice (Rotor, etc.)

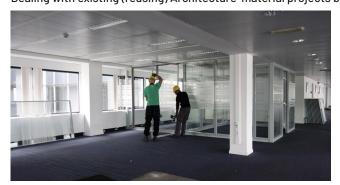




FIG. 1.135 The Multi-Brouckère Tower refurb project, where Rotor is helping enable the integration of reclaimed materials Source image: https://www.architectsjournal.co.uk/buildings/rotor-in-demolishing-developers-do-not-consider-the-true-cost-to-society (image credits:)

Epilogue

Annotations for the present and the future

Conclusions and reflexions

Conclusions and reflections

After having been theoretically and empirically examined the Open Society concept through the principles published in Wonen magazine as a proposal against the massive housing development of the polygons, seems to be partially valid.

In the theoretical part, it seems that it is in line with many principles of habitability and some with the right to the city. Although it must be taken into account that the principles respond to some critiques and are aligned with the liveability principles of UN but it lacks environmental approach and measurable goals in general. The lack of indicators does not allow to monitor the project's performance and the final output makes it more difficult for practitioners to apply those principles.

In the empirical and cross-examination of the two case studies, we have found several principles that have been classified as "neutral" in the two locations (technology and equity), valid in one and not valid in the other (cultural reasons). In those cases, they are detected in because of cultural differences, improvements and new disruptive technologies, issues of governance and inequality of spatial quality due to the programming of ownership and its relation with the lack transitional elements of the public-threshold-private space within specific housing typologies.

Perhaps the issues of equality, accessibility and possibility of choice are ideals that Jaap Bakema persistently pursued, but in reality we can see difficulty to implement from the abstract into the concrete and real world. It seems to me that Bakema was a little idealistic, which there is nothing wrong with being idealistic, but it is important to be aware of the realities (constrains and views) of the places to start working with the available materials. It must be said that these 64 principles do not show a great ecological awareness like today, it is possible to think that in 1962 when "silent spring" was published it was the beginning of the ecological movement. So, I believe that for this reason there are few principles that address these issues, although I can say that in both cases show a sensitive approach towards nature working on the relationship between urbanization and the landscape as well as critical view on dealing with the context, example of principle number 11.

A similar concept to the Open Society in contemporary times would be what Richard Senett calls the Open System completing with what he calls "ethics for dwelling".

To reconceptualize the Open Society concept, first the principles have been organized in the (Team X) categories (identity, association, cluster, mobility) and reformulating it into actual categories: built form, networks, etc. (using the trialectics of space from Lefebvre). Later, the columns have been divided into several rows that according to Maslow Pyramid that organizes the different needs from survival to self-realization. Thus, organizing human needs and being able to provide the necessary infrastructure so that citizens can manipulate it engaging in a creative dialogue in order to transform the built environment around them, and complete the cycle of interaction between sujects (conscience-feelings) and built environment (processes and forms). Therefore, dialogues and new forms of collaboration and

agreements (living labs) may flourish and play an important role to engage users politically and engage wit decision-making and co-creative processes, which allows for self-expression and spaces for autonomy. In this way, it gives the opportunity for individual expression and creation of individual identity as well as part of a larger group (community, society, planet) and makes us responsible for our attitude towards modifying our environment against the "laisser fer "Or letting the experts do it and causing the alienation that today invades modern human (Bauman).

Reflection:

The relationship between the subject of your graduation (project) and the main research fields addressed in the EMU.

The graduation project touches upon relevant topics in the field of urban design and planning such as social, environmental and spatial justice, topics that are studied and worked during the EMU program (urban regions and constructing the sustainable delta) workshops. The concepts of sustainability and resilience are a fundamental part of current urban developments around the world. But are these urban processes fair? Several UN reports point out that the world population grows and lives in urbanized areas, where inequalities grow rapidly, and focuses on how we can reinterpret and program the city-territory and its existing fragments in a more diverse, inclusive and fair urban development. for a better life in society and in harmony with Gaia as the sustainable habitation model (van Dorst, 2017).

The central theme of the thesis "towards a critical urbanism" investigates the gap between academia and professional practice that exists today. This gap allows us to rethink the concept-reality relationship that generates different positions in our discipline. The gap between is used to re-evaluate concepts that appear since the break with the Modern Movement (CIAM) until today, thus generating a new perspective on how to bring theory and practice closer together.

To have a firm answer on how to bridge this gap, we will have to investigate more in depth and breadth other contemporary concepts and theories such as Critical Regionalism (Frampton) and the practice of The Good Life (Aristotle) at a global level.

One of the observations in my research is that academia and practice are two fields that I understand must go hand in hand. However, many interests and cultural differences (political, economic, regims, paradigms, etc.) limit the possibility of full participation in both directions. Living Labs in Amsterdam is a breakthrough in cooperation between academia and practice. However, I believe that the academy should be more present in the decision-making of the city, in the form of a producer of knowledge in the processes of co-creation and production of the city, not only as a consultant but as an actor.

The reevaluation and re-conceptualization of the city-region implies the understanding of its history in relation to the thoughts, ideals and paradigms that have shaped it. For this reason, this research values the social and ethical commitment in which cities were founded as a site of emancipation, individual freedom and satisfaction of needs, demands and desires for a better society than the previous one. The modern paradigm introduced the scientific approach to urban planning, which was a great advance in the field of creating knowledge about the new city, the metropolis. However, the ideals and development methods of the city did not contemplate the complexity and dynamism of the built environment and its behavior. Today the increase in complexity, dynamism and uncertainty of built environments due to hyper-connectivity, consumption of excessive resources and polarization of individual positions and profit oriented development is evident and we need to adopt a multidisciplinary and transdisciplinary scientific approach that advocates in a more cohesive "humanist and ecological" way into the urban affairs of our city-regions.

Therefore, in my opinion, research, academia and professional practice in the field of urban design and planning have to regain their legitimacy and impact in urban projects, because our ability to spatially reflect urgencies, imagine possible scenarios, give possible technical solutions and translate into space possible solutions, but always at the service of society and planet. The critical attitude of the professionals in this field is relevant, recognizing the mistakes of the past (the chief architect in charge) and getting involved in the complexities of the built environment as one of the many actors, being empathetic, committed and critical. Jaap Bakema, Aldo van Eyck and López-lñigo (Subías / López / Giraldez) are examples of this type of committed and critical professionals who have appeared in this thesis with this specific projects.

It is important that professionals in the disciplines of urban matters develop a critical and ethical thinking and socially and environmentally committed attitude that advocates equality (subaltern studies) from a humanistic and ecological perspective, that promotes the possibilities of emancipation of the individual without compromising the well-being and health of (the others).

Relationship between research and design.

The methodology combines research by design and design research, mixing analytical and projective methods to represent the underlying reasons for this research, helping to answer the questions posed and preparing a set of recommendations, examples of good practices, tools and methodologies for a more just, inclusive and cohesive future urban project.

The relationship between research and design is very close in that the "research by design" method places design as the center of knowledge production and innovation through description, conceptualization, strategies and scenarios. Design is able to

generate a dialogue between the problems detected and the solution to be found (Nijhuis, 2013) an iterative process between analytical thinking, transforming information into knowledge and design thinking, transforming this knowledge into invention and that allows continuously redirecting research and deepening knowledge and thus provide suggestions and spatial solutions.

This methodologies are taught in the four universities of the consortium with their "reserach by design" approaches to urban planning and design and the university special expertise on some of those methods.

Personally, I see design as a fundamental tool in our profession as a producer of knowledge and invention as well as an effective tool for spatial communication during the process of co-creation and decision-making (drawings, models, etc.)

Elaboration of the method and research approach chosen by the student in relation to the methodical line of inquiry of the EMU, thus reflecting on the scientific relevance of the work.

Critically reviewing the methodology designed for the thesis (it has been adapted according to the circumstances (covid-19)) using a central double-level review (theoretical and practical, with a crossover analysis of two case studies) has been useful to bring a deep reflection and wide spectrum for the analysis of the case studies and to be able to answer the research question (to a certain degree due to the lack of mobility and communication due to covid-19). Perhaps, the design part of the research proposal could be expanded in more depth in another chapter of this research later.

The methodology has been worked using mixed methods to carry out the double comparative review and evaluate the concept of Open Society.

In the analytical thinking part, several methods (quantitative and qualitative) have been used to deconstruct the Open Society atlas into six critical cartographies where methods such as: 3x3x3 have been used for descriptions of agents, landscape such as anamesses or palimpsest, description and cataloging, Overlay of various selections of information to check principles, procedural and governance analysis, spatial-property-use analysis, cognitive and atmospheric analysis.

In the design thinking part, the following have been used: scenarios as a generator of possible visions (rework 4P tetragon framework), temporal speculation scenarios, processes, actors and governance (Maslow pyramid + transformative capacity).

Part of the method used to analyze the cognitive sequence (Cullen) of both places has been improved to methodologically represent the atmospheres of these sequences and the different intensities, especially in the spaces or transition thresholds, which

is not clearly defined and has a high value in the ambiguity that allows unforeseen events or chance encounters that give life to the places.

The combination of these methods has been of great contribution to the investigation and narrative of the developed topic, providing measurable facts and sensible facts that allow to describe with sensitivity and depth while communicating effectively trying in combine (ethos, pathos and logos).

Many of the methods used are theoretically and practically effective (operational), some methods have been found that have been improved, for example the Cullen townscape through the atmospheric description of the places. The combination of the sequence "from the chair to the city" has been depicted in key sequence that allows us to depict the atmospheres and the feelings during the transit through the space. The atmospheres have shown specially the grade of intensity of the "life" in the thresholds and transitions between public and private while helping to depict the use of space in different places (place-climate-culture).

Discuss the ethical issues and dilemmas you may have encountered when: conducting the research, (if applicable) developing the design, and possible applications of the results in practice.

The ontological discussion on the description of truth and knowledge has been going on for a long time, and on this topic is what the academics investigate, the paradigms. Much of the research developed lately, critically reviews the legitimacy of the knowledge produced, influenced by Western and imperialist paradigms that do not represent the reality of the entire global sphere. After the phenomenon of globalization and the process of deterritorialization-reterritorialization (Deleuze), the diversity of systems and beliefs have been exponentially multiplied and we cannot approach urban development based on ideals or group paradigms. Thus, my possible bias has been addressed with the methods that reflect critically and my effort to be critical.

In this thesis Subaltern Studies (Gramcsi, Ranajit Guha) are incorporated as theoretical discourse (Foucault) or framework to reflect on the ideals of the Open Society in the contemporary Western-global context and compare with the global policies of the New Urban Agenda (global) and places (local). Since the two case studies are in Western Europe, we cannot see a big difference in culture, but rather cultural differences within the same Western paradigms and some sign of globalization (emergence of other cultures on the European continent).

The epistemological scope of research raises questions about the methods and techniques used to produced knowledge, the current data of that time, to answer the research question. However, the historical information of the sites is critically evaluated and represented, through time and long-term processes (Braudel), spatialized like the palimpsest (Corboz), to deconstruct and evaluate it. As there is no satellite imaging technology, there is little information and plans and aerial photography have been used at that time.

The proposed research design methodology (double level and cross-examination) appears to be a robust structure and transferable to other concepts globally, for example: Critical Regionalism (Frampton) and the good life (Aristotle). Definitely, further development will be necessary (in the analysis method and processes that require new methodologies and approaches) since the phase of this thesis is in an initial state.

Some information extracted from the Open Society concept (Jaap Bakema and Team X) are publications about these concepts and personal figures. However, I had limited access to official documents at COAC (Barcelona) and NAI (Rotterdam) due to the pandemic situation, so the information is a combination of original sources that I was able to find online and other publications, about it with enough quality and reliability. The reliability of the knowledge produced must be compared with the authors of the publications and the original sources.

Disclaimer, all information extracted from official websites is used for research purposes only, therefore no rights can be claimed from the author of this research.

Elaboration of the relationship between the graduation project and the broader social, professional and scientific framework, addressing the transferability of the project results.

In the social sphere, this work aims to advocate for those vulnerable communities (cultural and natural) that do not have a voice in the general public and are equally important to achieve "Flourishment" in our cities, territories and planet. Citizens without discrimination based on gender, race, class, sexual orientation, ethnicity or religion, have the right to have access and use of "Common goods" (public goods, resources, etc.) of urban environments without compromising (des autres) nor the life of other species on Gaia.

Professionally, the work aims to reevaluate the first rupture with modern ideals and developments in the Welfare State with a contemporary critical eye and up to the present time, and in this way, recover the social commitment that began in modern times, incorporate it and re-conceptualize it according to contemporaneity.

In the scientific field, after studying various thinkers and professionals, from Lewis Mumford and Jane Jacobs to the most current, Carmona, Castells, Gehl, Hall, Lefebvre, Senett, Solà-Morales, among others.

I believe that with a double-level revision (theoretical and empirical) and a cross-comparative analysis of two case studies will provide with enough knowledge, methods and tools for professionals to critically evaluate their sites, the layers, structures and invisible forces behind the built environment constructed that will allow to operate with a more inclusive and fair approach and impact urban development and obtain more knowledge of the limitations of the practice and thus generate a synergy between the academy and the most committed practice.

For this reason, my interest is focused on investigating how certain thoughts and paradigms have shaped our cities and territories to the present day and critically reflecting on them until the contemporary discourse and their validity and lessons learned, so to allow new perspectives and discussions to emerge while embracing other forms of discourse and practice to prosper. I believe that this research proposal has long-term potential within a broader context comparing cultures will help to clarify the possible coexistence of paradigms in a wider global discourse in order to contribute the common pool of knowledge.

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- 't Hool Eindhoven. Book of patterns (Craig, Matthijs, Rafaela) TU Delft.
- The residential district as an opportunity of urbanity. The Dutch experience of Bakema and van den Broek
- New Urban Agenda Quito declaration on sustainable cities and human settlements for all (Habitat III, UN)
- Montbau Horta Guinardó Juliol 2020, Ofinina de dades, Ajuntament de Barcelona
- Full tv debate by Noam Chomsky and Michel Foucault on the question of Human Nature. Debate on philosophy and politics that in 1971 was recorded for Dutch television.

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Appendix

Appendix Part I

Theoretical and empirical revision concept of Open Society

Chapter 1: Literature Review

In search for a better Society and Modern utopian ideals (CIAM)

The era of modern planning and architecture was the first attempt to bring theory and practice together. The conception of the environment as a very slow process of transformation brought static concepts and ideals to shape the cities of that period. The willignes of providing a decent and higenic place for everyone to live in the "city".

CIAM 4 "Athens Charter" The discussion on "the functional city" was revolving around the topics of fundamental functions (live, work and recreational) with circulation as a conjunctive element (car-oriented). This topics became determining for the urban form of that period.



FIG. 1.137 Publication -The Charter of Athens 1933 Source: http://www.planum.net/



FIG. 1.138 Participants CIAM 4 in the organized trips Marseille-Athens 1933 Source: http://www.planum.net/

The unconditional faith in the capabilities of Modern Planning and science, based on Positivistic paradigm, made them belive capable of universal claims and formulation of Modern Utopian Ideals. In this case, we have to be aware that the epistemological root of all this knowledge and the ideals generated from it are from Western Philosophy and Knowledge rooted since the end of city-states and begining of Empires. (knowledge based on power-knowledge relations and processes, which does not represent the whole reality, therefore, quite unlikelly to be universal)

Moreover, the central role of the urbanist-architect backed up with the results of the research conducted by specialists in their field, made the architect as the responsible "like god" to decide what was necessary for society

As Central role of the architect in shaping shociety and cities (Top-down)

Worldwide impact: West and East, as well as Southern Hemisphere.

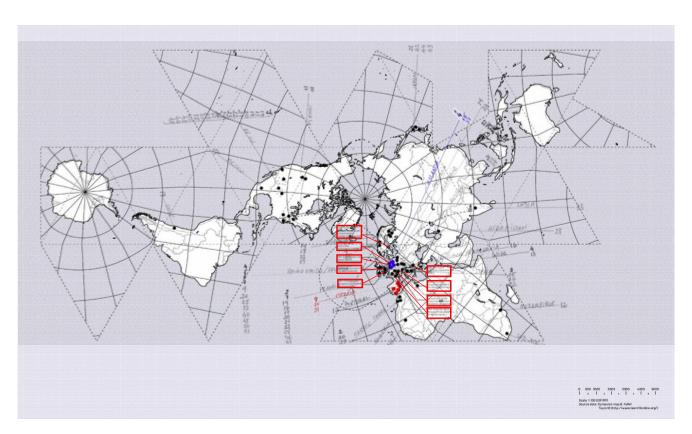
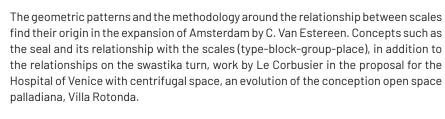


FIG. 1.139 Conferences CIAM Source: Made by author with data from: www.teamX.org and others.

Experiments Opbow and De 8

(Dutch CIAM group)

Dutch experimental tradition



In Opbow and De8 appears as well other experiments on housing such as the project Justus Van Effen by Birkman where the collective character of this mackoblock is worked in many aspects with very spatial arrangements (diversity of housing typologies, bridges in the air, porosity in the groundfloor, disposition of community programs, constructive qualities, etc) a very innovative proposal of the 20's with many lessons for the contemporary urban block configuration.

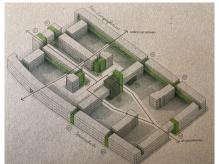


FIG. 1.140 Project Spangen Birkman - Justus Van Effen Housing Block, Rotterdam. Source: 10 Housing histories, A+T publishers.

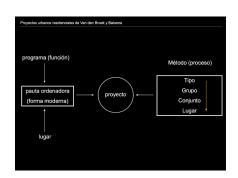


FIG. 1.141 Explanation method residential urban projects Van der Broek & Bakema.
Source: D. Martinez (2007) Las formas de la identidad. El proyecto urbano residencial en Van der Broek y Bakema.



FIG. 1.142 Explanation of Van Esteren influeneces and approaches to urban configuration. Article Van Estereen and Amsterdam extension plan. (Sabaté, 1989)

Source: UR, published between 1985 and 1992 by the Urbanism Laboratory (ETSA Barcelona-UPC). (LUB)

*Experiments on Opbow and De 8 on scale and configuration.



FIG. 1.143 Extension plan Amsterdam by Van Esteren. Project of development Buitenveldert neighbourhood, Amsterdam.
Source: (Buitenveldert 2013)Gemeente Amsterdam Stadsdeel ZuidGemeente / Amsterdam www.vlugp.nl/projecten/kastelenstrook/

Alexanderpolder project, Rotterdam. Experimental mass housing: macroblocks, scale relationship, civic spaces, identity elements.

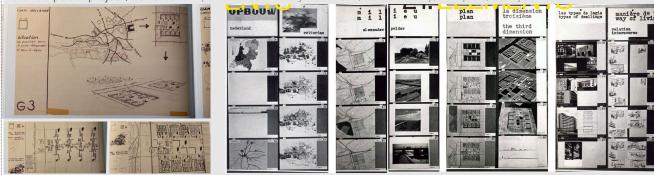


FIG. 1.144 Studies on scale and civic space in Alexander Polder, Rotterdam Source: Picture from the book(Van den Heuvel, Martens, Muñoz Sanz (2020) Habitat, Ecology thinking, NAI Publisers)



FIG. 1.145 Studies on scale, identity and clusters in Nagele. Source: Picture from the book(Van den Heuvel, Martens, Muñoz Sanz (2020) Habitat, Ecology thinking, NAI Publisers)

Configurative discipline

Method:

The team of Dutch architects Van den Broek i Bakema develops research on collective housing between 1945 and 1965 includes both the typological essay and the coherent structuring of urban complexes.

The approach to the projects of districts like Pendrecht, Alexander polder, Leeuwarden and 't Hool where, with a few rules, they explore new formulas of grouping of the houses, maintaining the will of typological mixture and variation of the urban spaces, working the concepts of surroundings and scales. The method works the scales transverally with type-block-group-place (see pic 1.131).

This approach find resonances with the approach in Buitenveldert (although much advanced) where the configuration of "stamps" or block is a relevant part of the structuring of the area and the transitions.

Supporting grid

Looks like in both cases used a grid as a supporting canvas where the dimensions were linked to the proportions of housing structure. Which help them to draw and dimension space according to the scale and need of the area.

Geometrical patterns and proportions:

This approach find resonances with the approach in Buitenveldert (although much advanced) where the configuration of "stamps" or block is a relevant part of the structuring of the area. The geometrical pattern of "rotation" allow for a semi-closed block with a centrifugal interior space creating transition spaces in the corners, which also remembers the works of Rietveld and the composition works of The Stijl.

Also finds echoes in Le Corbusier proposal for the Hospital of Venice (centrifugal space, an evolution of the conception palladiana open centripetal space, Villa Rotonda).

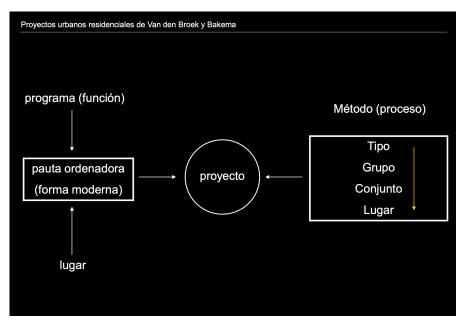


FIG. 1.147 Explanation method residential urban projects Van der Broek & Bakema. Source: D. Martinez (2007) Las formas de la identidad. El proyecto urbano residencial en Van der Broek y Bakema.

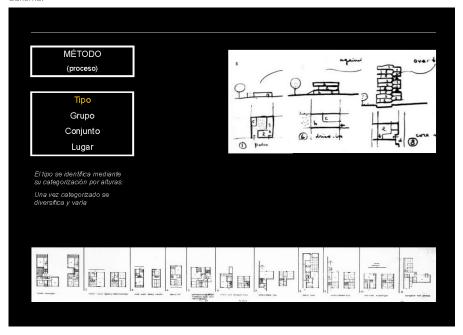


FIG. 1.146 Explanation method residential urban projects Van der Broek & Bakema.

Source: D. Martinez (2007) Las formas de la identidad. El proyecto urbano residencial en Van der Broek y Bakma.

Crisis CIAM and the breaking point by Team X.

The modern ideals, full of good intentions to improve human conditions for a better society, taken by the modern movement to articulate this willings into space and urbanization were implemented until the 60's.

In the CIAM congress in Otterlo 1959 a group of young architects stated that the old modern ideals were not valid anymore (refering to the Athens charter) and proposing a new approach to urban planning and architecture. This group later called Team X they claimed that the modern functional ideals had to center in the human scale as a response to the traditional.

According to the Team X, the cause of mass production and monofunctional areas in the 'functional city' which Bakema on the contrary defended the "city of vitality": a "living city full of variety and expression of personal desires for housing."



FIG. 1.148 Otterlo Meeting (CIAM '59) organized by Team X, 43 participants. Dissolution of the organization

Source: NAI collection archive

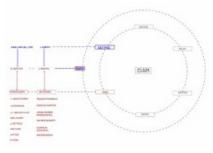
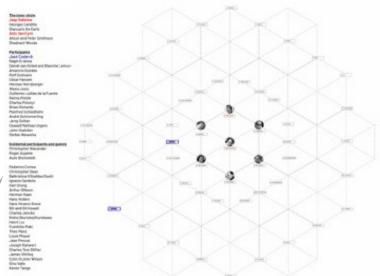
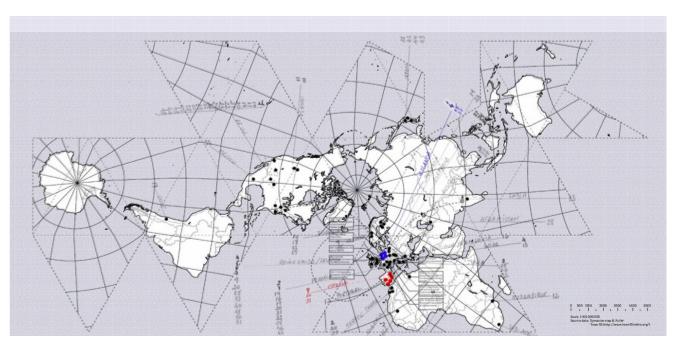


FIG. 1.151 Scheme groups of CIAM and list of participants in Dutch groups De 8 and Opbow.

Source: Made by author with data from: www.teamX.org and others.

FIG. 1.150 Networks of Team X and participants Source: Made by author with data from: www. teamX.org and others.





 $\label{eq:Fig.1.149} FIG. 1.149 \ \ Network of Team X memebers and participants by countries around the globe Source: Made by author with data from: www.teamX.org and others.$

Environment and Scale

(Team X)

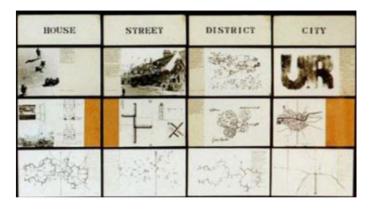
The main concepts developed in the discussions of Team X were in the field of environment and scales. The further the concepts of identity, association, mobility and cluster that was a continuation on what they researched previously in their respective groups (Opbow, De 8) involved in the CIAM.

Which they reflected in a series of works and publications.

't Hool is a project that applied many of the research done in those topics. In 't Hool reserached many of the topics such as: tree structure, mixed income. diversity of typologies, flexible and expandanble houses, macroblock typology, human scale and tcreation of community feeling as well as societal space, visual association or visual group, etc.

In this proposal we cannot see the idea of Bakema of mixed use concept (projected in the megastructures), we can still see the juxtaposition of functions coming from this funcionalist ideas and some referenced projects like the comercial center (which seems to take the same aproach as in lijbaan).

Seems that 't Hool takes lessons from Alexanderpolder (Opbow, Bakema) and in Nagele (Nagele, Van Eyck) which is translated in Civic space, density, diversity of typologies, association of scale, macroblock to diferentiate mobility flows, identity and cluster, standarized construction.





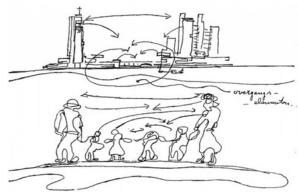


FIG. 1.153 Scheme "friendship model" by Jaap Bakema of environment as a relationship. Source: https://www.nai.nl

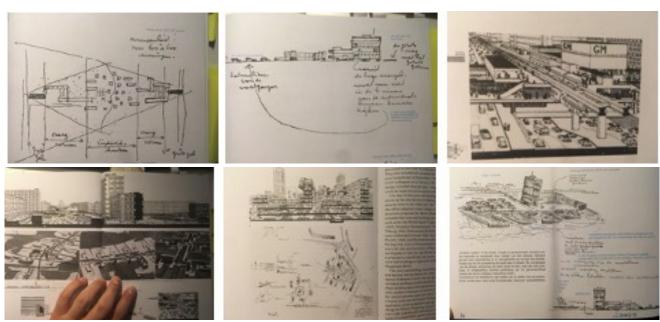


FIG. 1.154 Scheme by Smitshon of relationship between scales Source: Pictures from the book Van den Heuvel, D. (2018) Bakema and the open Society. Nai publishers



FIG. 1.155 Examples of the metaphor "tree-leaf" of Van Eyck and the concept of what he calls the configurative discipline. Among the various examples (P. Bloom, etc) Van Eyck selects t'Hool by J. Bakema. Source: https://www.nai.nl/coverbooks from bol.com

Appendix Part I

Chapter 2: Atlas of the Open Society and its five Critical Cartographies

Cartography History

History and events

Housing production in Eindhoven and the case of t' Hool:

The industrial city of Eindhoven underwent enormous development starting in the 1920s with the flourishing of the Philips company. The municipality was barely able to cope with this rapid growth. In the immediate aftermath of WWII, the city lacked an approved expansion plan, where the municipality did not allocate housing contingents. Philips volunteered to help and took over several construction tasks from the municipality. The group had many working-class neighbourhoods built for the low-income classes

Right after the war, as in many cities, it was all about the pace and volume of construction - the housing shortage had to be resolved as soon as possible. In Eindhoven, this often led to the construction of poorly differentiated neighbourhoods.

Plan 't Hool:

The 't Hool neighbourhood was an initiative of Philips employees who were unhappy with the ways of housing and the uniform way of building in the late 1960s. They had their own neighbourhood designed by architect Jaap Bakema. Bakema shared his humanistic vision and devised an alternative to the drab rebuilding areas of the time.

In consultation with future residents, he designed not only the urban structure, but also the houses. The result was a total composition in which urban development, architecture, use of materials and landscaping are seamlessly blended and designed together. The spacious, inward-facing neighbourhood looks very diverse due to different types of housing, targeting different age groups and income classes. The application of a limited palette of materials [predominantly brick and wood] and colours has resulted in a recognizable and calm whole.

With his design for 't Hool, Bakema created a new model of urban living: a democratic neighbourhood that reflects the spirit of the 1960s, a holistically designed living environment in which the human scale and interaction between residents were central. His plan contained a clear urban design, various types of housing, and a green structure that was designed in conjunction with the urban structure.



FIG. 1.156 Expansion Woensel neighbourhood Eindhoven .

Source: Historical Atlas of Eindhoven

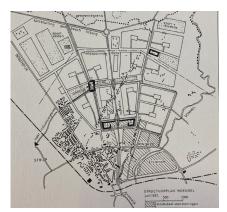


FIG. 1.157 Expansion plan Woensel, 1957. Source: Historical Atlas of Eindhoven

Note: The historic relevance of this transfer of knowledge or inspiration of the architects from Montbau in the historic, political context in the modern "solutions" exposed in the Interbau and in the visits to other countries among them Netherlands. Will deserve a paper to bring this knowledge to the public, that will be addressed after the graduation project.



FIG. 1.158 Plano de parcelario realizado, entre 1930 y 1940, por el Servicio Topográfico del Ayuntamiento, bajo la dirección de Vivenç Martorell Portas. Source:www.ajuntament.barcelona.cat/



FIG. 1.159 Poligons habitatge a Barcelona (A. Ferrer i Aixalà)

Source: https://lub.upc.edu/

Barcelona and the shortage of Housing:

The conditions after WWII in most of Europe were similar, except for the countries that did not participate in it, Spain did not participate in this warlike encounter since another internal war catastrophe was coming, the Spanish civil war, which ended with the establishment of the Spanish autarchy until the transition of (60?).

Industrialization was the great economic engine of European countries and generated the great phenomenon of large migrations of people living in rural areas to large cities and industrial zones.

The conditions of the informal settlements or "barracks" that were formed in the periphery from the city. Thus, putting the alarm and the creation a social emergency plan in 1945.

Barcelona due to its shortage of housing stock since 20's, urban operations for the Universal Expo and the big internal migration in the 50's to Madrid and Barcelona, among many other factors had become a chronic symptom of shortage housing stock.

Which resulted in several National plans for social housing until 1965 when it was presented and approved the "Plan de Urgencia Social" in Madrid and later in Barcelona.

Montbau was from (the end of the first period or beginning second) in which was during the plan of 43. Seeing that the gap in shortage of housing stock was enormous, a new law was approved in 1944 to operate parallelly to the plan 43. This new law was for promoting "middle income housing developments" which allowed a large number of private developers build along with few public institutions (state and local), which the renamed Patronat de la Vivenda (1945), old "Patronato Habitacional", developed 3 projects in Barcelona.

Plan Montbau:

The "Pla de Montbau" is a project with the aim of alleviating the housing deficiency in Barcelona due to the internal migration of the country due to several factors including industrialization, the end of the autarchy policies of openness.

Modernity, agent of transformation

Modernity in the 60s acted as an agent of transformation. Thus, industrialization and modernization act as agents of transformation of certain areas that have to be industrialized and urbanized in order to accommodate the migrant populations who arrive in search of work in the new industrial areas, as explained above.

In the case of Barcelona, at that time, there were large settlements of barracks in undeveloped areas where migrant workers lived in unsanitary conditions to live near the factories and not lose their jobs. This same case happens in Europe, there are large internal migrations that are due to the location of the industries and a new phenomenon of modernization of certain areas to provide a minimum of habitability to the users who arrive and to be able to offer minimum conditions of habitability.

Thus, in all CIAM congresses and other related events, the minimum needs to be able to live are discussed and investigated.

In Spain, we see that these developments are specific, and in the Netherlands a National Plan is even generated, and different scenarios are formulated. On the next page, in which we already talk about how the territory has been transformed, we observe before and after this period of industrialization, how the issue of the treatment of the place has been approached, how it has been acted on, and we can see that In the modernization periods, the concept of the relationship between the roads and the place, (the road infrastructures were important and the place not so much, as functionalist thought promulgated), which created certain problems a posteriori. The great expansion treated in Eindhoven shows the great impact of the area that has been detected in the study of the palimpsest, and how it is deconstructed in the 3 different layers of space: green, road and built.

We can see the natural lines in Eindhoven are almost eliminated. Due to this, it is intuited that the expansion was not projected considering the pre-existence of the place. In general, in Barcelona, the pre-existence and location are somewhat respected(since the area has an accentuated orography that influences the economic viability of the project). Although we know that in the process of modernization and urbanization in Barcelona that began with Cerdà, dominating the territory through the grid or mesh, controlling it to be able to exploit it, since this was the way of doing and the mentality of that time, the proposals show a more sensitive relationship with the place.

We study this process of transformation of the territory over time. We can observe the great process of urbanization and occupation, the increase in occupation that occurs in the territory and as due to this occupation, the natural landscape substantially disappears. We used several historic maps of the city from the historic archives and publications mentioned in the bibliography.

For looking into the matter of the physical state of the existing we will deploy the technique of reading the Palimpsest (Corboz, Viganò, 2020)





FIG. 1.160 Plans for expansion and modernization areas.

Source:

Case study t' Hool, Eindhoven, NED.







FIG. 1.162 Geography Critical Cartography of Open Society in t'Hool, Eindhoven, Netherlands. Source: made by author. Data source: historical plans (ref.), pdok platform (2021),

Conclusions:

- Political situation: liberal-social democracy (rebuilding the nation)
 Heavily damage cities because of WWII
 Urgencies: Big migrations from rural to urban areas and shortage housing
 Expansion (bij)Philips) and redevelopment of the city structure (redefining)
 Policies housing, producing same type of development.

Case study Montbau, Barcelona, ESP.





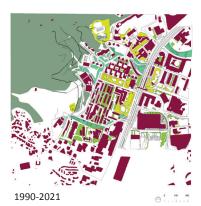


FIG. 1.161 Set of historical cristalizations in time to study the process of tranformation Source: made by author. Data source: historical plans (ref.), pdok platform (2021),

- Political situation: Autarchy (process of internacionalization)
 Not participated in WWII
 Urgencies: Big migrations from rural to urban areas and shortage of housing in the city.
 Expansion city in its borders (natural limits)
 Policies of "openness" to Western ideals

Palimpsest process

As we can see, in the result of the study of the palimpsest, there are certain pieces that remain, and the proposals show an effort to connect and overlap the proposals with the place and its preexistence. Both in Montbau and in 'Thool this disregard for the place does not exist, as we can observe in the analysis, by not following the doctrines of tabula rasa or similar methods of implantation in the territory, it is shown through a critical and sensitive look in both cases. We can say that in both cases they are concerned with the place and articulation of the different structures and pre-existing elements that make up the DNA of the place and its heritage.



FIG. 1.163 Codex Ephraemi Rescriptus de la Biblioteca Nacional de Francia. (Palimpsesto)
Source: Plate XXIV. The Holy Bible. New York: Henry Frowde, Publisher to the University of Oxford, 1896.



FIG. 1.164 Las ciudades son siempre palimpsestos Source: www.arquitecturaviva.com

Case study t' Hool, Eindhoven, NED.







Ocupation

Open Space

Case study Montbau, Barcelona, ESP.







Legend:

Palimpsest cristalized

Case study t' Hool, Eindhoven, NED.

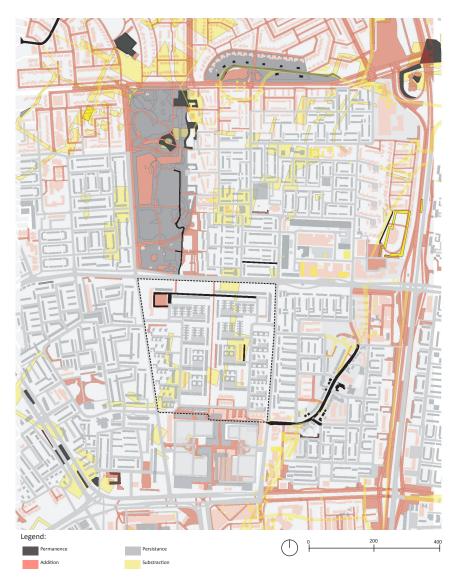


FIG. 1.165 Palimpsesto analysis 't Hool to see the historical transformation on the site to compare (64 principles). Source: made by author. Data source: historical plans (ref.), pdok platform (2021),

Case study Montbau, Barcelona, ESP.



 $FIG.\,1.166\ \ Palimpses to\ analysis\ Montbau\ to\ see\ the\ historical\ transformation\ on\ the\ site\ to\ compare\ (64\ principles) Source:\ made\ by\ author.\ Data\ source:\ historical\ plans\ (ref.),\ icc\ (2021),$

Process analysis: Inception, performance and conformance

To look critically to the process and evolution of the project we will analyise the process from inception untill the realization to the project.

Usin the method of performance vs conformance (A. Faludi) to analyse the process of development and making of the proposals. For that we will apply the evaluation method of performance vs conformance developed by Faludi lo analize the project as a process and purely as a result.

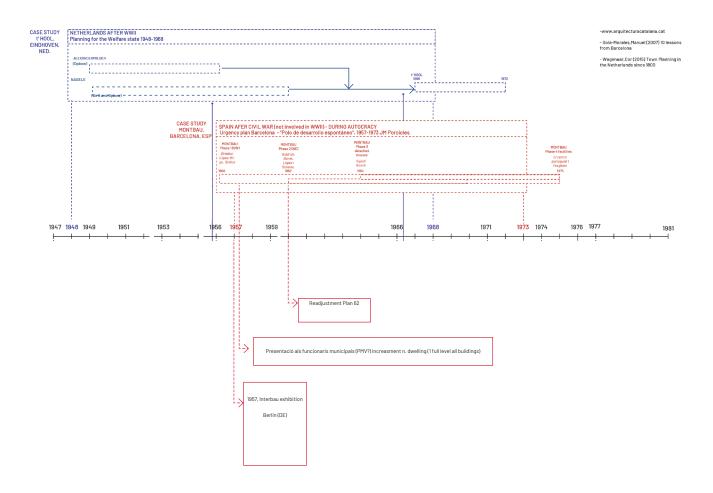


FIG. 1.167 Timeline overlap projects Source: Author

Willings and inception analysis

Experimentation and knowledge.

't Hool, Eindhoven, NED.

According to Stichting Communal Facilities (SGV) \dot{t} Hool, a foundation set up by the homeowners themselves, the analysis of the inception, the situation, wishes and design process is as it follows:

In the beginning of the sexties, during the welfare state period, the city of Eindhoven still had shortages in the housing stock since the economy of the city boomed after the location of the two main industries Deli-HTL and Philips. To combat this shortages the strategies adopted was to provide type of construction fast, cheap and uniform.

Some engenieers of the Philips NatLab, politically left wing (Kees van Es, Frans Schijff, Jaap 't Hart and Ger Klein), were meeting regularly during lunch time to talk about many issues. Among those issues was the insatisfaction with the offer in regard to the new housing stock in the city of Eindhoven. The new neighbourhoods of Wonesel were a good example of this model dominated by row houses,. This model of development was designed according to the so-called parish model with separate more or less prosperous neighbourhoods, that also maintained the rigid pre-war social relations. Which the employers of Nat Lab, that had experienced a great solidarity during WWII, wanted to break and propose something better for all.

In June 1961, the group of engenieers from Philips NatLab founded General Housing Association , Algemene Woningbouwvereniging Huis-en-Wijk, with the aim to produce a rental neighbourhood with the participation of the future users, but this was not possible since it was not feasible. By the reformulation of the size and program of the development, mix of owner-occupied and rental property, it was soon feasible.

With the help of Kees van Lieden president of the Social-democratic housing association, among others, researched and selected a list of designers to propose but did not succeded because most of master designers they had already plans that were not build and adjusting it to the requirements from the users could fit. Finally, they manage to find the studio Van den Broek en Bakema willing to engage as designer. Bakema was a functionalist but critical to the dogmas of the CIAM. Moreover, he was a committed professional and very attentive to the wishes and demands of the users.



FIG. 1.168 Logo of the Association Huis-en-Wijk. Source: www.woonwijkhethool.nl/



FIG. 1.169 Jaap Bakema at his office. Source: www.woonwijkhethool.nl/

DTERBAU

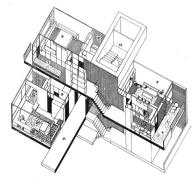


FIG. 1.171 Split-level technology – both residential wings are offset by half a storey Source: www.hansaviertel.berlin/



FIG. 1.170 Caption of online newspaper "EI Periódico" and archived in the Appendixes. Source: www.elperiodico.es

Montbau, Barcelona, ESP.

According to the publication in Quaderns from O. Bohigas about Montbau and the interview to Xavier Subias in the newspaper El Periódico in 2009. the analysis of the inception, the situation, wishes and design process is as it follows:

Barcelona due to its shortage of housing stock since 20's, urban operations for the Universal Expo and the big internal migration in the 50's to Madrid and Barcelona, among many other factors had become a chronic syntom of shortage housing stock.

The poligom of Montbau was the result of new law was approved in 1944 to operate parallelly to the Plan 1943, because of the large deficit of housing stock acumulated during the previous periods meant to provide affordable housing. This new law was for promoting "middle income housing developments" which allowed a large number of private developers build along with few public institutions (state and local), which the renamed the old "Patronato Habitacional" into Patronat de la Vivenda (1945), which developed projects locally in Barcelona.

The urgency of the Patronat coming from the existing situation made land the comision in the young office (Giraldez, Lopez, Subias) which seems to be related to proximity and administrative relations (important to remember that the country was under the Autarchy of Franco and started to implement policies of openess towards the exterior).

The ambitions of the Patronat were to adopt and import the metodology and caracteristics of the international examples like (the german "Siedlung", etc.) (A.Ferrer Aixala, 1974)

During this period the Patronat de Vivenda promoted and paid several trips to England, France and Berlín (Interbau 57) to the architects to learn from the international avangarde european models. The architects were very impresed by the display in Berlin (Appendix pg....).

The resemblance of diversity types of buildings, typologies and technical solutions "split-level" as shown in the tower in the Hansaviertel in Berlín by Bakema is one of many examples we can see at first sight.

During a period of time the poligon of Montbau was the urbanistic "Vedette" of the City Hall in Barcelona.

Interview "El Periódico" X.Subias

[Germà Sierra, El Periódico de Catalunya, 2 Desembre 2009]

(via blog <u>Arquitectura Catalana</u>)

A l'avantguarda: El modern urbanisme de Berlín donava resposta a la necessitat de donar sortida a la gran pressió demogràfica

Va ser un dels principals arquitectes durant el desarrollismo, quan tocava reconstruir una ciutat emergent incapaç d'absorbir les diverses onades migratòries. Va trobar un model de construcció social que avui es reflecteix a Montbau, una de les seves principals creacions.

P. A la seva generació li va tocar dissenyar la ciutat després de la guerra. Quina situació hi havia?

R. Després de la postquerra Catalunya va experimentar un gran creixement malgrat que la política de l'Estat era centralista, autàrquica i temia el creixement de Barcelona. Tot va començar a canviar amb els plans d'estabilització i desenvolupament però, sobretot, amb el nomenament de Porcioles.

P. Què va significar la seva arribada al consistori?

R. Ens va animar a anar a Europa a aprendre com feien les coses allà. Estudiar models arquitectònics d'altres països perquè aquí fóssim capaços de reconstruir el país i gestionar l'onada migratòria. En aquell moment Catalunya reunia el 30% de llocs de treball de l'Estat.

P. Llavors van intentar traslladar solucions arquitectòniques europees a l'Estat franquista?

R. Sí, vam viatjar a Anglaterra, a França, però el que més ens va impactar va ser Berlín. Allà vam aprendre un tipus d'urbanització nova que vam traslladar a les nostres obres a Barcelona. En lloc d'illes d'edificis, tot s'organitzava al voltant de blocs que formaven unitats autosuficients.

P. Laquest és l'origen de Montbau?

R. Exacte. Montbau va néixer gràcies a les operacions realitzades pel Patronat de l'Habitatge a finals dels 50 amb la intenció de donar sortida a la pressió

demogràfica. Amb aquell pla i les noves idees que havíem vist a Europa ens vam posar a treballar.

- P. Què s'hi van trobar?
- R. Amb 30 hectàrees de camp en un terreny molt difícil, amb gran pendent. El torrent de Montbau travessava el terreny i vam decidir que dividiria el barri en dues ales.
- P. Sembla que l'origen de Montbau era més teòric que pràctic, molt pensat per l'arquitecte però poc per als habitants... [sic]
- R. No, els vam tenir molt en compte. Sobretot pel que fa a la higiene de les cases, que en aquella època deixava molt a desitjar. També vam inventar una ordenança perquè fins i tot durant el solstici d'hivern els pisos tinguessin una hora de sol. D'aquí ve aquell tipus de bloc aïllat i estret tan característic.
- P. Aquesta no ha estat una de les principals crítiques al barri, la lletjor [sic]? R. En aquella època ens preocupava més la funció que l'estètica. Una vivenda digna i higiènica. L'estètica era el funcionalisme.
- P. Mirant enrere, canviaria alguna cosa del que va fer a Montbau? R. No, i la principal raó és que els veïns n'estan contents. L'única queixa que hi havia, però ja ha perdut vigor per l'arribada del metro, és que era lluny de Barcelona. També ens van acusar de fer barraquisme vertical però la gent s'hi ha quedat i el barri respon avui al que vam idear fa 50 anys.
- P. Els temps han canviat...
- R. Però la fórmula de Montbau segueix vigent. Miri, ara la Generalitat vol fer una sèrie d'actuacions molt del tipus de Montbau per tot Catalunya. Encara que evidentment la tecnologia d'avui és una altra i es poden fer més coses.
- P. Li interessa l'arquitectura actual?
- R. Hi ha de tot, projectes molt bons i altres que no ho són tant. Però no ho segueixo de prop per opinar. Als meus 83 anys em refugio en el passat, a intentar entendre els que m'agradaven abans i els que no.
- P. Li puc preguntar per què viu a la Diagonal i no a Montbau?
- R. Vaig treballar un temps a l'oficina de planificació de l'ajuntament i hi vaig dissenyar el pla parcial de la Diagonal. Per això em sento molt familiaritzat amb la zona. Alguns col·legues viuen a Montbau i estan la mar de contents. Com diu Pierre Vilar, Catalunya és un país que fluctua però torna a emergir. Després de la postquerra hi ha etapes de creixement molt fortes amb crisis esporàdiques. Tot el camp [sector agrícola] de l'Estat va cap a Europa i a mig camí hi ha Barcelona i Catalunya.

Translation (google translate)

At the forefront: Modern urbanism in Berlin responded to the need to address the great demographic pressure

He was one of the leading architects during developmentalism, when it was time to rebuild an emerging city unable to absorb the various waves of migration. He found a model of social construction that is reflected today in Montbau, one of his main creations.

Q. It was your generation's turn to design the city after the war. What situation was there?

A. After the post-war period, Catalonia experienced great growth despite the fact that state policy was centralist, autarkic and feared the growth of Barcelona. Everything started to change with the stabilization and development plans but, above all, with the appointment of Porcioles.

Q. What did your arrival at the town hall mean?

A. He encouraged us to go to Europe to learn how they did things there. Study architectural models from other countries so that here we could rebuild the country and manage the migratory wave. At that time, Catalonia had 30% of state jobs.

Q. So they tried to move European architectural solutions to the Francoist state?

A. Yes, we traveled to England, to France, but what struck us most was Berlin. There we learned a new type of urbanization that we moved to our works in Barcelona. Instead of building islands, everything was organized around blocks that formed self-sufficient units.

Q. And this is the origin of Montbau?

A. Exactly. Montbau was born thanks to the operations carried out by the Patronat de l'Habitatge in the late 1950s with the intention of overcoming the demographic pressure. With that plan and the new ideas we had seen in Europe we set to work.

Q. What did they find?

A. With 30 hectares of field in a very difficult terrain, with great slope. The Montbau torrent crossed the terrain and we decided to divide the neighborhood into two wings.

Q. It seems that the origin of Montbau was more theoretical than practical, much thought by the architect but little for the inhabitants... [sic]

A. No, we took them very seriously. Especially when it comes to home hygiene, which at the time left a lot to be desired. We also invented an ordinance so that even during the winter solstice the flats would have an hour of sunshine. Hence the characteristic, narrow, isolated type of block.

Q. Hasn't this been one of the main criticisms in the neighborhood, the ugliness [sic]?

A. At that time, we were more concerned with function than aesthetics. A dignified and hygienic home. Aesthetics was functionalism.

Q. Looking back, would you change anything about what you did in Montbau?

A. No, and the main reason is that the neighbors are happy. The only complaint there was, but it has already lost its vigor due to the arrival of the metro, is that it was far from Barcelona. We were also accused of vertical shantytowns but people have stayed and the neighborhood responds to what we came up with 50 years ago.

Q. Times have changed...

A. But Montbau's formula is still valid. Look, now the Generalitat wants to do a series of actions very much like Montbau all over Catalonia. Although obviously today's technology is different and more can be done.

Q. Are you interested in current architecture?

A. There are everything, very good projects and others that are not so good. But I don't follow it closely to opine. At 83, I take refuge in the past, trying to understand what I liked before and what I didn't.

Q. Can I ask you why you live on Diagonal and not in Montbau?

A. I worked for a while in the town planning office and designed the partial plan for the Diagonal. That's why I feel so familiar with the area. Some colleagues live in Montbau and are happy. As Pierre Vilar says, Catalonia is a country that fluctuates but re-emerges. After the post-war period there are very strong growth stages with sporadic crises. The whole field [agricultural sector] of the State goes to Europe and halfway there are Barcelona and Catalonia.

Process analysis

Performance vs conformance (Faludi, 1989)

Case study t' Hool, Eindhoven, NED.

The proposal of 't Hool as we learned previously was born as a community innitiative.

The plan and design of the housing development was in direct consultation with Huis en Wijk, the housing cooperative created by the engenieers Philips. During the conversations between them and Bakema, he translated their desires, wishes and needs into a first design for the residential area. Initially, he designed an example of the neighbourhood with around 500 homes, with a ficticious context, because they didn't find yet a plot for the plan. (fig1.28) The important part of this design was the diverse stock of different housing units and types, the mix of high and low rise and the building wall with the "split-level" model which he has used in the Hansaflat in Berlin.

Later, when the municipality of Eindhoven freed a centric area of the Development area of Woensel for construction, Bakema ajusted the plan to the site. This site was bigger than the first desing plan, which Bakema ajusted with the creation of a second neighbourhood kind of "mirrored", duplicating the number of housing, and a green axis between the two housing groups or big clusters.

The Municipality saw 't Hoolas as the final high end piece to the urban expansion of Woensel and ask Van den Broek & Bakema to design the big comercial area in the south of 't Hool.

During the first half of the 60's the plan was carried out by Bakema and later, his employees Stokla and Lans. Huis-en-Wijk (housing association) created a series of committees to formulate and present their demands in specific areas, one of the most important is the increase of surface area in the bedrooms, which the future user thought that were too small. After many dicussions, the future neighboours manage to archive their demands and wishes, including small issues and details. Bakema was working out the demands of the future residents as well as the pressure put from institutions with regulations but eventually the project moved on step by step until its full realization.



Note:

The know mass housing developments in north Europe is what in Barcelona is called "Poligons de vivenda"

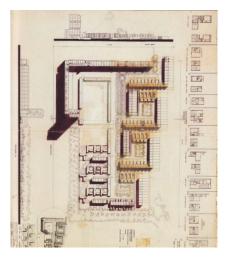


FIG. 1.173 First plan developed without context Source: http://open.jaapbakemastudycentre.nl/

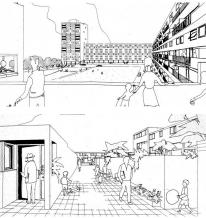


FIG. 1.172 Jaap Bakema at his office Source: www.woonwijkhethool.nl/

Case study Montbau, Barcelona, ESP.

In 1956, the Patronato Municipal de Vivienda comissioned the project "polígon of Montbau" to a young group of architects (Giraldez, López y Subías). The criteria of selection of this group of architects.

Rapidly in 1957 the group of architects presented a first plan following the demands almost at the level of masterplan for the Commemorative Exhibition organized by the Patronat. After the exhibition, the municipal theories from the City Hall, adjusted and modified the plan until its approval. One of this ajustments was to add a full level to the whole plan, with the concern of not being dense enough in relation to the cost of the land, which was an administrative imposition. These adjustments where using regulatory documents and ajust them to their wills.

At the end of the 1957, with the final approval. The first phase, started with the Patronat as the promotor, making them participate in the process as owners and constructors several particular entities such as cooperatives. This method proved to be very effective and brought little sociological integration. (Bohigas, 19...)

When the second phase started in 1961, the promoter, the Patronat comissioned this phase to a very heterogenious group of architects composed by two municipal architects, a provincial architect and independent architect. Again, the critea of selection seems to point to proximity and administrative relation. (Bohigas, 19...). This group of architects, composed by one of the previous phase, they realized that the proposal of the second phase had to be reestructured and redrawn according to the ideas they had.

The design of the second phase does not follow the principles and guidelines proposed in the first phase for the whole plan. However, with the designed proposed with an interesting clustering of L pices they manages to duplicate the number of housing regarding the first proposal from 1957, in that sense we can see a distancing from the rigidity of the linear block proposed in the first phase more in line with the CIAM aesthetics.

The third phase (1957-1966) was the only one promoted by a cooperative and developed by Joan Bosch Agustí in which the building performs as a part of the topography and the context, which resemble the concept mad-buildings proposed by Peter and Alison Smithson.

Concluding revision we could say:

-process desicion-making and design: strongly top-down



FIG. 1.176 Jaap Bakema at his office Source: www.woonwijkhethool.nl/

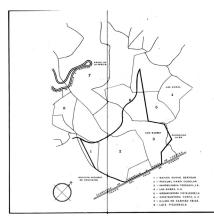


FIG. 1.175 Jaap Bakema at his office



FIG. 1.174 Jaap Bakema at his office. Source: www.woonwijkhethool.nl/

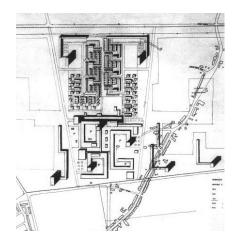


FIG. 1.177 First proposal insertion on site assigned. Source: www.woonwijkhethool.nl/

In the end, the final design had nine different types of housing with some sub-types within. It consisted of three types of semi-detached houses (A, B, C) that varied in size and height, three types of houses with a patio (D, E, J), that also varied in size, an independent urban villa with a large garden (type F), the two-level bayonet house (type G) and the self-service house (type H) with garage under the house.

Afterwards, when the development was completed, Huis-en-Wijk closed and it was replaced for the Community Facilities 't Hool Fundation, which since then has been the responsable of the maintence of the comunal green areas and promotes the recognition of this urban development.

Recently, this urban development has been selected as one of the hundreds of places that are protected as a "monuments" in the Netherlands.

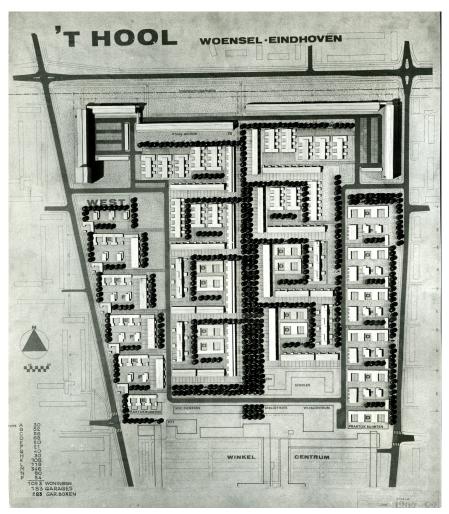


FIG. 1.179 Final proposal't Hool Eindhoven 1961, collection Het Nieuwe Instituut BROX Source: https://www.plataformaarquitectura.cl/cl/02-359908/bienal-de-venecia-2014-pabellon-de-holanda-invita-a-repensar-la-sociedad-abierta/



FIG. 1.178 Scketch Van der Broek on final proposal Source: http://www.doyoucity.com/

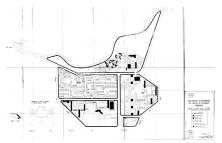


FIG. 1.183 Plan heights 1957 (First version)
Source: www.unitevamontbau.wordpress.com

-modified several times assambled in a collage method, shows the evolution of thinking in architecture-urbanism, however shows lack of coherence in the urban structure and process.

-cooperatives involvement in the making, administrative and sociologically interesting.



FIG. 1.182 Plan 1962 (Second version)
Source: www.unitevamontbau.wordpress.com



FIG. 1.180 Perspective 2nd phase Montbau (1962) Source: Archive patronat d'Habitatge



FIG. 1.181 Perspective 3rd phase Montbau Source: www.arquitecturacatalana.cat/

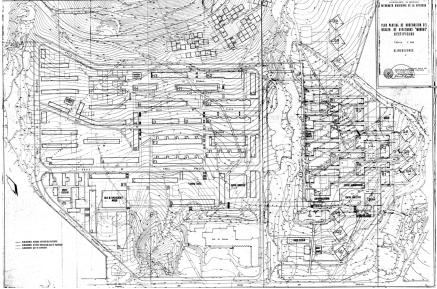


FIG. 1.184 Alignments and modified plan 1962 (approved) Source: www.unitevamontbau.wordpress.com

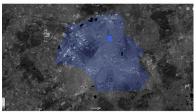
Appendix Part I

Chapter 2: Atlas of the Open Society and its five Critical Cartographies

Cartography Geography

Geographical location



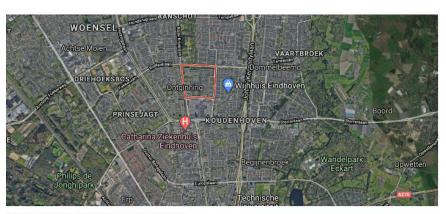


Eindoven data:

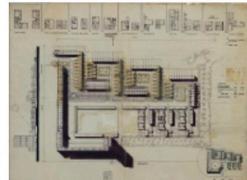
population: 235.707 inh. S. Area: 87,66 km² Density: 2.689 hab/km² Mayor: John Jorritsma Climate: Oceanic

't Hool data:

population: 1.035 inh S. Area:0,34 Km2 Density: 6459 hab/km2







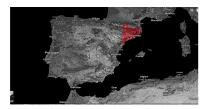
Case study t' Hool, Eindhoven, NED.

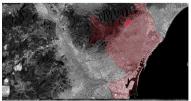
The district is located north of Eindhoven city center in the larger Ontginning district, part of the Woensel-Noord district, and is named after Hoolstraatje, which stretched north of the district.

The district borders the Bisschop Bekkerslaan continuum in the north, the Woensel Mall in the south, the Franklin D. Rooseveltlaan in the east, and the Genovevalaan in the west.

Veldmaarschalk Montgomerylaan, south of the shopping center, connects the district with the city center.

The original boundary of the zoning plan has been used for the boundary. Part of the [original] shopping center is located in it, to the south of the district.





M. Barcelona data:

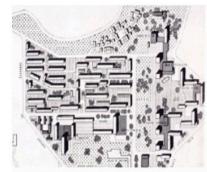
population: 1,63 mil inh S. Area:102,2 Km2 Density: 15.945 hab/km2 Mayor: Ada Colau Climate: Mediterranean

Monthau data:

population: 5.157 inh S. Area: 0,3 Km2 Density: 2.520 hab/km2







Case study Montbau, Barcelona, ESP.

Barcelona is delimited between the coastal mountain range (Collserola) to the west and the Mediterranean Sea to the east, in turn to the north and south with the mouths of the Besos river and the Llobregat river respectively, presenting two Montjuich and Carmelo polecats.

60% of the Montbau neighbourhood area is within the Collserola Natural Park. The remaining 31 hectares are occupied by the urbanized area at the end of the 1950s and now, they concentrate the nucli habitat

The characteristics of Montbau's environment (orientation, temperature, little pollution,) can be considered privileges for certain uses. Residential and residential activities can be carried out easily as long as this development is carried out in a suitable way.

This territory that Montbau occupies today was slowly integrated into the Barcelona space. It was not affected by the industrialization plan of Barcelona in the 19th century. It did not begin urban growth like other areas of the city until well into the twentieth century, which grows in the South and West sectors.

Topography and Water

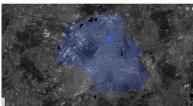
Case study t' Hool, Eindhoven, NED.

In the case of 'Thool, we can see that it is in a plain, it does not have an accentuated orography and it is located near the Gender river and Tovergender river, what we can observe is how the infrastructures reformulate the existing topography.

*(extracted report)

"The villages and city that make up modern Eindhoven were originally built on sandy elevations between the Dommel, Gender and Tongelreep rivers. Beginning in the 19th century, the basins of the rivers themselves have also been used as housing land, resulting in occasional flooding in the city centre. Partly to reduce flooding, the bed of the Gender stream, which flowed directly through the city centre, was dammed off and filled up after the War, and the course of the Dommel was regulated. New ecological and sociohistorical insights have led to parts of the Dommel's course being restored to their original states, and plans to have the Gender flow through the centre once again."





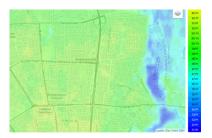


FIG. 1.185 Altimetry Source: made by author. Data source: historical plans (ref.), pdok platform (2021),



FIG. 1.186 Topography and water plan in 't Hool, Eindhoven, Netherlands. Source: pdok platform (2021),

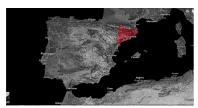
Case study Montbau, Barcelona, ESP.

In the case of Montbau we can observe that the geographical location is relevant for its condition of ecotone, which is created by the orographic and climatic conditions. The site location is comprise between the hill "Collserola" and the soft slope plain of barcelona towards the sea.

The orography of the place is accentuated and irregular due to the streams that erode the surface and link surface and subsurfae. (relation to types of soil and the possibilities of construction and technical solutions)

We detected that the proposal of Montbau worked with the topography, bringing typologies adapted to it.

The water cycle and cathment area is directed via engenieriung solutions toward the main city drainage collector, breaking the water cycle of the area. Still we can see the water subsurface is present with the pounds that exists still in the place. The water quality of it is aparently not healthy.



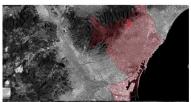




FIG. 1.188 Subsurface types Source: made by author. Data source: historical plans (ref.), pdok platform (2021),

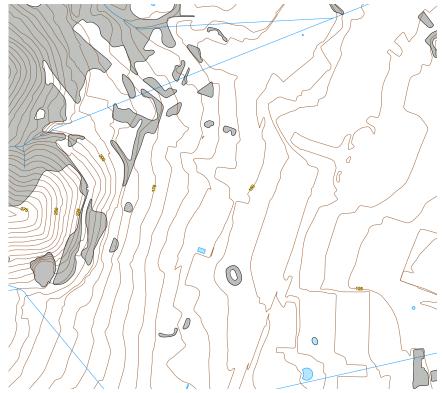


FIG. 1.187 Topography and water plan in Montbau, Barcelona, Spain Source: ICC (2021),

Climate

Orientation proposals (Sun, wind, etc)

The orientation of the proposal show a clear understanding of the relativity of the geographical orientation (see fig and how to locate the built elements to protect and use the wind as a mechanism of natural ventilation, good sun orientation. Moreover, the spatial solutions and thresholds created to deal with weather, very different in each location and culture.

Case study t' Hool, Eindhoven, NED.

Eindhoven has an oceanic climate with slightly warmer summers and colder winters than the coastal parts of the Netherlands. Its all-time record is 40.3 °C (104.5 °F) set on 25 July 2019 and –21.7 °C (–7.1 °F) set on 13 January 1968, while winter lows have dipped below –15 °C (5 °F) during extreme cold snaps. Although frosts are frequent in winter, there is no lasting snow cover in a normal winter due to the mild daytime temperatures.

In Eindhoven cantilevers are used to protect themselves from the rain, since we find cantilevers to the north, the proposal is protected from the wind and the high voltage network trying to create a microclimate within the proposal, intermediate spaces are also used in the skin of buildings, something that Bakema already pointed out in his principles that there had to be intermediate sites between interior and exterior that could be used during all seasons of the year, adapting to the climate change during the year.

We can see in this case that 'Thool has quite low temperatures and it rains a lot, which influences the types of spaces where people congregate, usually indoors.

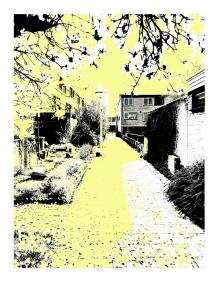


FIG. 1.189 Atmospheres acording to climate and culture. Source: Made by author

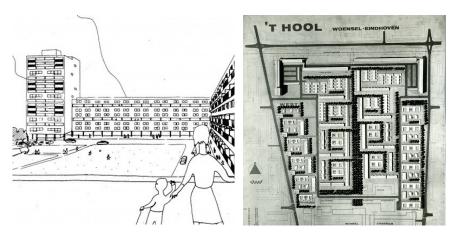


FIG. 1.190 Original plan with shades study and perspective that shows the porosity in the facade as a strategic spatial arrangements for climatic purpouses. Source:www.nai.nl

What we can see in relation to the climate is that 't Hool are resources and strategies, so they are linked in both cases.

Case study Montbau, Barcelona, ESP.

Summers are short, hot, humid, and mostly clear, and winters are long, cold, and partly cloudy. During the course of the year, the temperature generally ranges from $5\,^{\circ}$ C to $28\,^{\circ}$ C and rarely drops below $1\,^{\circ}$ C or rises above $31\,^{\circ}$ C.

The Mediterranean climate is characterized by a deficit in rainfall during the warm part of the year. It presents seasonal rains in the cold part of the year

In the case of Montbau, which is located on the Mediterranean coast with constant and mild temperatures. We also observe that this spatial repertoire responds to vernacular themes related to the climatic conditions of the place, providing shade in summer, taking advantage of sunlight in winter and taking advantage of the sea mountain air currents, strategically positioning the blocks. The orientation in both cases takes into account the sunlight and how these pieces are located to obtain the best lighting and maximum ventilation due to health issues that remind us of the resources or vernacular strategies that have always been used, that is, they use similar but adapted geometries perfectly to the place.



FIG. 1.191 Atmospheres acording to climate and culture. Source: Made by author



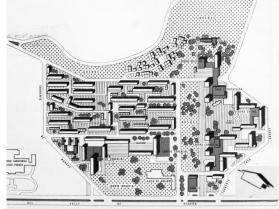


FIG. 1.192 Original 1st phase plan with shades study and perspective that shows the porosity in the facade as a strategic spatial arrangements for climatic purpouses. Source:www.uniteva.com

Landscape design

Regarding the study of the landscape, it should be noted that 't Hool collaborated with a landscaper who collaborated in the design of the proposal, and that the landscape or vegetation was also used as an element of privacy.

The locations generate diverse ecological structures, in the case of Montbau we can see how this large park along the Riera de Can Barret, Poesía street, is later used as the vertical axis of the proposal, connecting it with the territory.

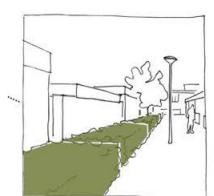
The two sites have a large area of green area that allows drainage and completion of natural cycles.

In the case of Montbau, the structure and types of landscape (green spaces) that exist are varied due to its location in an ecotone, that is, between the mountain and the plain.

Case study t' Hool, Eindhoven, NED.



Green infraestructure



Zachte groene overgangen Borders aan de achterzijdes van woningen en schuurtjes



FIG. 1.193 Green analysis of the proposal in 't Hool by landscape designer. Use landscape as strategy of privacy. Source: (2011) Rijksdienst voor het Cultureel Erfgoed

0 75 150

In 'Thool, diversity is sought through the spatial configuration of different types and sizes of green in relation to scales. As we know, both in 't Hool and Montbau the architects understood green space as an open space and with a social function in general terms, but without an ecological purpose. Normally, these spaces are treated with grass, trees and other plants, but they are not proposed thinking about the diversity or biodiversity of the place, what we see a posteriori.

Over time, both in Montbau and in 't Hool, projects have appeared in which due to the existence of a large area of green space, it has been possible to repopulate these natural habitats through an exhaustive study of the species, of the fauna and flora existing in them, thus introducing the natural habitat that existed previously to the urbanized environment so that humans can coexist with the DNA of the place.

Case study Montbau, Barcelona, ESP.





FIG. 1.194 Green analysis of the proposal in Montbau from the (AMB) Source: Report landscape Jordi Bellmunt arquitecte

Habitat: Fauna and flora

Case study t' Hool, Eindhoven, NED.



FIG. 1.195 Tipes of Fauna and Flora in 't Hool analysis. Source: www.hethool.nl (biodiversity report)

Case study Montbau, Barcelona, ESP.



Pinus pinea / Pins pinyoners / Stone pine



Quercus cerreoides / Alzina marfull /



Pinus halepensis / Pi



Hyparrhenia / Graminea /



Ulex parviflorus / Gatosa /Gorse

Europe.

Like many species of gorse, it is often a fire-climax plant, which readily catches fire but re-grows from the roots after the fire; the seeds are also adapted to germinate after sights escorching by fire. It has a slay root, lateral and adventitious roots. An extremely tough and hardy plant, it survives temperatures down to -20 °C (-4 °F)[3] It can live for about thirty wars.



Cistus is a genus of flowering plants in the rockrose family Cistaceae, containing about 20 species. They are perennial shrubs found on dry or rocky soils throughout the Mediterranean region from Morocco, and Portugal





Sus scrofa / Porc Senglar /

The wild boar, also known as the 'wild swine', 'common wild pig', or simply 'wild pig', is a suid native to much of Eurasia and North Africa, and has been introduced to the Americas and Oceania. The species is now one of the widest-ranging mammals in the world, as well as the most widespread suiform.



Vulpes/ Guineu / Fox



Hyparrhenia / Graminea /



Sciurus vulgaris / Esquirol /



Erithacus rubecula /



Carduelis carduelis / Jilguero goldfinch



Turdus merula / Mirlo /



Columbiade / Colom / Pidgeon

FIG. 1.196 Tipes of Fauna and Flora in Montbau analysis.

Source: Mediambient Ajuntament Barcelona, Deodendron, www.associaciomontbau.org (informe paisatge)

Appendix Part I

Chapter 2: Atlas of the Open Society and its five Critical Cartographies

Cartography Socioeconomics

Sociological approach

Case study t' Hool, Eindhoven, NED.

In the case of 't Hool we have to contextualize that was the period after WWII and during the Welfare State developments. Eindohven as mention before was expanding do tothe rapid industrialization and modernization plans.

The economy was booming at that time, people were engaging in their individual freedom and a strong feeling of emancipation which car became a symbol of this freedom. (fig.)

However, the future users of 't Hool experienced much solidarity during the WWII and wanted to embrace this solidarity and propose a new model for the future neighbourhood of the Cooperative.

A mixed income and tenure development to embrace the diversity and inclusion in a more horizontal $\,$ and open society.

The sociological approach in 't Hool is based on the need expressed from the need of the future users and Bakema and organized based on the "anonymous client" (fig.1.69) . First the proposal divides three types of housing (in relation to the building level) with some variations this three types can be adress the needs of different types of household agrupations.

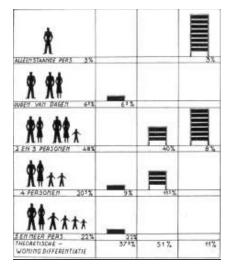


FIG. 1.197 Tipes of Fauna and Flora in 't Hool analysis. Source: www.nai.nl



FIG. 1.198 Photography interior comunity block with views to the tower after completion (70's) Source: www. jaap-bakema-study-centre.hetnieuweinstituut.nl

Case study Montbau, Barcelona, ESP.

In the case Montbau la aproximacion sociologica principal fue implementar las programaciones hechas en un estudio sociologico (fig.) que como vemos no se siguio al pie de la letra en una revision de este con una comprobación con 670 individuos. (fig.)

In addition to the more local economy introduction model that has been lost over time.

¿Cuál es el planteo sociológico de Montbau?

En la memoria de una de las primeras fases del proyecto, hemos encontrado la siguiente previsión, fruto, según se dice, de «informes sociológicos que han servido de programa a los arquitectos para la composición de las viviendas» (10):

1.	Obreros no calificados	25 %
2.	Obreros calificados, empleados y funcionarios	
	de modesta categoría	25 %
3.	Empleados, profesionales y funcionarios de ca-	
	tegoría media	45 %
4.	Rentistas, empleados y funcionarios de cate-	

goría superior

Según este informe, una distribución de este tipo era fundamental para «formar un núcleo social con vitalidad». A pesar de ello, en un informe redactado en 1963 se dice que, sobre los datos recogidos a base de 612 cabezas de familia, la categoría socio-profesional de los habitantes del barrio se distribuía realmente así (11):

	Obreros no calificados	10,78 %
2.	Obreros calificados, empleados y funciona- rios de modesta categoría	73,05 %
	Empleados, profesionales y funcionarios de categoría media	15,05 %
4.	Rentistas, empleados y funcionarios de ca- tegoría superior	1,12 %
		100,— %

FIG. 1.199 Sociological studies for the project Source: Oriol Bohigas Cuarnos publication (original source reports from archive patronat habitatge)



FIG. 1.200 Photography of Plaça Montbau 60's Source: www.uniteva.org



FIG. 1.201 Photography plaça Montbau $60\mbox{'s}$ after 2nd phase construction Source: www.uniteva.org

Diversity, housing types and variations

In the case both cases, we observe how they try to provide social diversity to the proposal, how they try to achieve a horizontal society through different social levels



Case study t' Hool, Eindhoven, NED.

In 't hool, we can see typological mixture within the same block, group and place. This is achieved due to the methodology used in relation to diversity and scales (type-block-group-place). Although in property matters there is a clear division between rent and property.

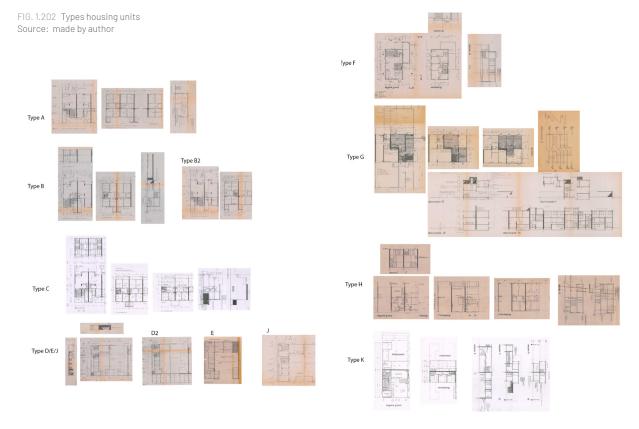


FIG. 1.203 Plans of all housing types units and their variations (3main types: Tower-block, row-houses, detached and patio. Source: www.woonwijkhethool.nl

using different typologies within each block, and variations within these typologies to have everything type of profiles of individuals and social levels.



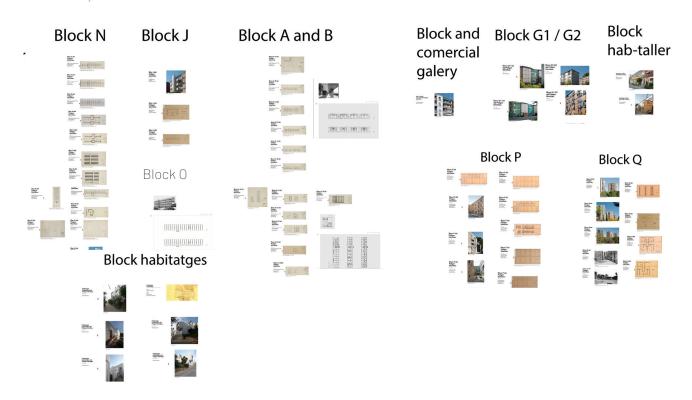
FIG. 1.204 Type housing units Source: made by author

Case study Montbau, Barcelona, ESP.

In the case of Montbau, the intention is to introduce the proposal in reference to a sociological study through the spatial variations, responding to the architects and their approach to design. We can see a bit the evolution of urban design following the three phases of the project.

In the first phase is generated through typological variations, introducing, for example, the split level (used in both 'Thool and Montbau proposals).

In Montbau, the urban form of the first phase has little typological variation, we can see some sparks with the combination of blocks and low atelier-housing in the same block.



 $\begin{tabular}{ll} FIG. 1.205 & Plans of all housing types units and their variations (in the three phases) \\ Source: www.arquitecturacatalana.com \\ \end{tabular}$

Functions and Economy

We can observe certain phenomena happening in both cases. The increasment of built area of the highly specialize clustered functions in relation to Health, Education

Case study t' Hool, Eindhoven, NED.

We can see that the models that are used or that probably respond to the zoning and proposed planning then, in the case of 'Thool, are in relation to the large stock of specialized area (Hospital, Sopping mall, Sports and education centers) or to the functional planning of separation of functions.

Although we can see the traces of the purely monofuntional plannig "housing character" of 't Hool, we can see the rise of small services aprearing thanks to phenomena of globalization and the demands of users, various services have appeared within the proposals reusing the existing typologies.

Moreover, the affect to the shift in planning culture that promoted mix-use functions combining layering and juxtaposition.

What is observed is that there is no clear and strong civic structure such as civic axes, however, the projects in Eindhoven are working in this direction and focusing on public space.



FIG. 1.206 Analysis types of functions and coverage area to constrast with (64 principles) Source: made by author. Data source: icc (2021),

and sports. Provably due to knowledge economy, services and technological risruption.

Case study Montbau, Barcelona, ESP.

In Barcelona, the proposal is located between two large patches of facilities and tries, through small facilities strategically located in different civic axes of the proposal itself, to configure in this way civic axes and large squares.

The programs related to daily life programed since the beginning are closing because of retirement of the owners and no possibility of traspassing the business appeared.

In the case of Montbau, we find barriers created by large neighboring polygons of the time, these large areas around the Hebrón Valley and the Mundet homes, which hinder the relationship with the neighboring neighbourhoods, although they allow passage and longitudinal connection with the Ronda. In the vertical connections there are accessibility problems, which we will talk about in the subject of Mobility (accessibility).

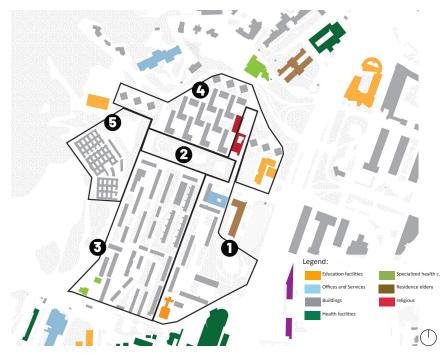


FIG. 1.207 Analysis types of functions and coverage area to contrast with the (64 principles) Source: made by author. Data source: icc (2021),

Public space, Civic form and Density

Case study t' Hool, Eindhoven, NED.

What is observed is that there is no clear structure such as civic axes, as it appears in the case of Barcelona.

These two cases also help us to understand typological forms, the relationship between built form and programming of public space.

In the short analysis of the social life and public space we see that the structures are there but they are not properly activated with program in the buildings neither public space treatment.

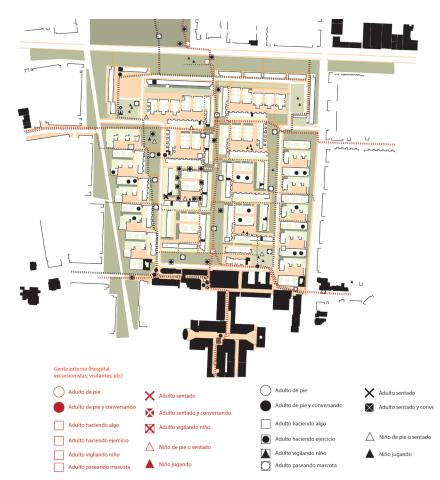






FIG. 1.209 Analysis public space and functions to constrast with (64 principles) Source: made by author (observation). Data source: pdok (2021),

Case study Montbau, Barcelona, ESP.

Two large civic axes have been detected that have been activated over time, one, which is parallel to the Ronda, which was the old Vall d'Hebrón road, and has already been formulated as an axis, and the vertical backbone with the territory that the neighbors have been appropriating, modifying, creating, certain living areas that the neighbors use (Parc Montbau).

In the case of Montbau, we find barriers created by large neighboring polygons of the time, these large areas around the Hebrón Valley and the Mundet homes, which hinder the relationship with the neighboring neighbourhoods, although they allow passage and longitudinal connection with the Ronda. In the vertical connections there are accessibility problems, which we will talk about in the subject of Mobility (accessibility).



FIG. 1.211 Analysis density pop/ha to constrast with (64 principles) Source: made by author . Data source: icc (2021) Ajuntament data,

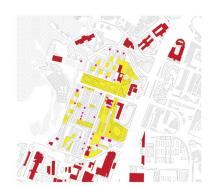


FIG. 1.212 Analysis public space and functions to constrast with (64 principles) Source: made by author (observation). Data source: icc (2021),

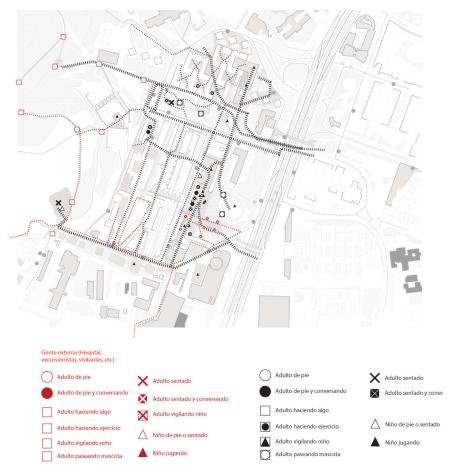


FIG. 1.210 Analysis public space dynamics and use to constrast with (64 principles) Source: made by author (observation). Data source: icc (2021),

Comparison 1960s and 2020s

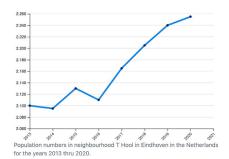
Housing Unit:

In the social indicators we can detect that the number of monoparental families are increasing. Trend that in academia has been widely discussed and research in what is the new minimums of living, sharing housing culture, etc. to tackle the large amount of square meters per person.

The necesities of living have changes, specially after covid-19, we have experienced much more our living environment and what are important qualities for a good living.

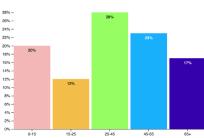
Population numbers per year 🔊

The number of inhabitants in neighbourhood T Hool in Eindhoven in the Netherlands



Population per age group 😙

The percentage of inhabitants per age group in neighbourhood T Hool in Eindhoven in the Netherlands



Neighbourhood T Hool, 2020, age groups.

Population, age groups: percentage of inhabitants per age category



FIG. 1.214 Socio-Economic data 't Hool (2019) Source: www.eindhoven.nl/

Case study t' Hool, Eindhoven, NED.





 $\begin{tabular}{ll} FIG. 1.213 & Comparison population in the 70's and now Source: www.hethool.org \end{tabular}$

Diversity (age, cultures, etc)

Another issue we see that share are the full spectrum of ages. This projects were design for working young adults. The general trend of aging in our populations have put the atention to the needs of different profiles of people.

Therefore, due to the diverse population in our cities not only generational and also cultural have definally change the approaches to the city and its production.

The subaltern frameworks attempst to rethink about that in terms also to powerrelations.

Case study Montbau, Barcelona, ESP.



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FIG. 1.215 Comparison population in the 60's and now Source: www.veinsmontbau.org/



FIG. 1.216 Socio-Economic data (2017) Source: www.ajuntamentbarcelona.cat

Appendix Part I

Chapter 2: Atlas of the Open Society and its five Critical Cartographies

Cartography Form, Scale, Matter

Design grid support

We can intuitively see the existance of a support grid structure in both cases. We think might be related to the housing typology structure and dimensions.

No official documents in relation to this topic could be found.

Case study t' Hool, Eindhoven, NED.

In 't Hool we can observe that the grid used is matching all the proposal because of its one design phase and architect.

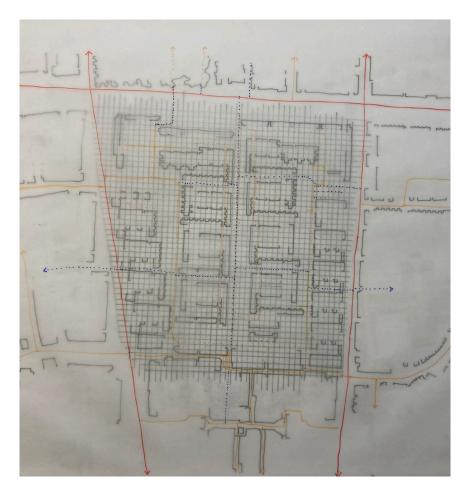


FIG. 1.217 Fronts and spacesyntax analysis, grid estimate projection dimensions Source: made by author (hand drawing and QGis)

Case study Montbau, Barcelona, ESP.

In Montbau we can observe the use of several grids used during the proposa and changing because of its one design phase (approach) and architect.



FIG. 1.218 Fronts and spacesyntax analysis, grid estimate projection dimensions Source: made by author (hand drawing and QGis)

Type configuration

Type, Block, Group, Place

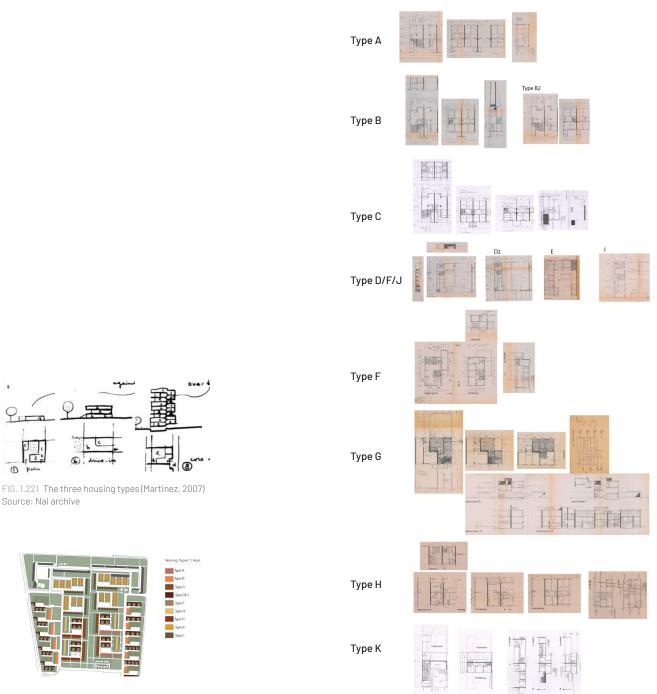


FIG. 1.220 Plan diversity types and floor plans. Source: https://www.woonwijkhethool.nl/

FIG. 1.219 Floor plans of the three types of housing and variations (split-level) Source: https://www.woonwijkhethool.nl (data sorce:)

Types 1st Phase:

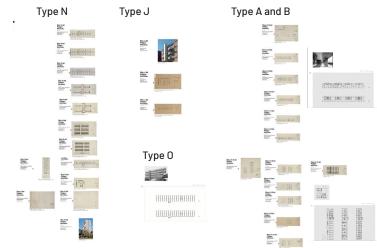




FIG. 1.225 1st Phase in Plan 1962 (Second version) Source: Coac archive







FIG. 1.224 2nd Phase housing types (Plan 1962) Source: Coac archive



FIG. 1.222 3rd Phase housing types (Plan 1962) Source: Coac archive

Types 3rd Phase:



FIG. 1.223 Floor plans of the diverse types of housing and variations (split-level) Source: www.arquitecturacatalana.cat (data sorce:Coac archive)

Block configuration

Type, Block, Group, Place

Blocks case study 't Hool, Eindhoven, the Netherlands

Public-private transition space





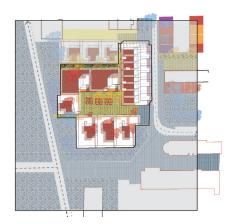


FIG. 1.227 Transition public-private study of the block configurations Source: Made by author (data source: ICC 2020, openmaps 2020, google maps)

Volumetric study and materiality







FIG. 1.226 Volumetric and materiality study of the block configurations Source: Made by author (data source: ICC 2020, openmaps 2020, google maps)

Blocks case study Montbau, Barcelona, Spain

Public-private transition space

Volumetric study and materiality

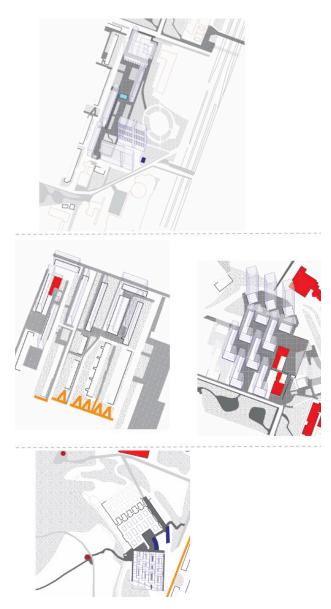


FIG. 1.229 Transition public-private study of the block configurations Source: Made by author (data source: ICC 2020, openmaps 2020, google maps)

FIG. 1.228 Volumetric and materiality study of the block configurations Source: Made by author (data source: ICC 2020, openmaps 2020, google maps)

Group configuration

Type, Block, Group, Place

Groups case study 't Hool, Eindhoven, the Netherlands

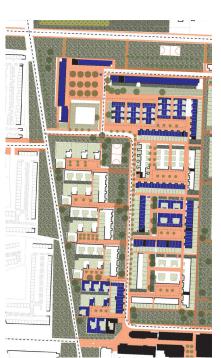


FIG. 1.231 Types of block and public space Source: made by author



FIG. 1.230 Fronts and visual group study Source: Made by author (data source: ICC 2020, openmaps 2020, google maps)

Groups case study Montbau, Barcelona, Spain

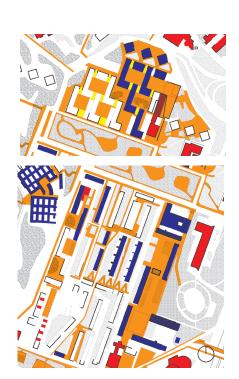


FIG. 1.233 Types of block and public space Source: made by author

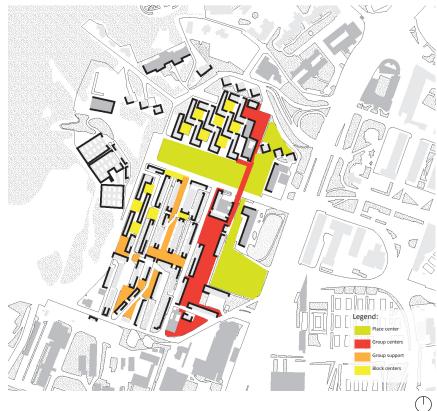
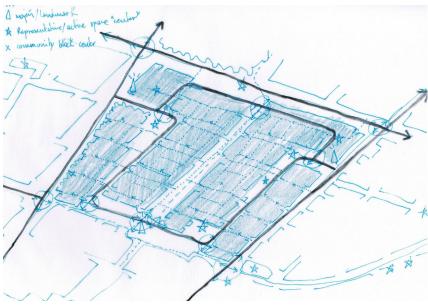


FIG. 1.232 Fronts and visual group study Source: Source: Made by author (data source: ICC 2020, openmaps 2020, google maps)

Place configuration

Type, Block, Group, Place

Place case study 't Hool, Eindhoven, the Netherlands



Source: made by author (observation, site visiting)

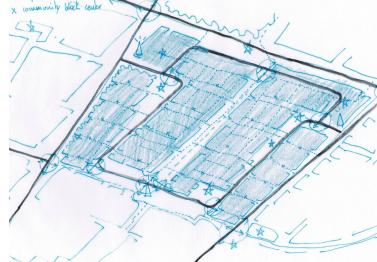


FIG. 1.235 Cognitive map of 't Hool, location from the user.

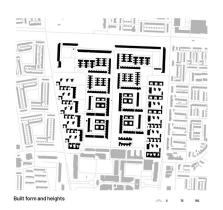


FIG. 1.238 Street integration (space syntax

Source: made by author

FIG. 1.237 Analysis heights and granulometry Source: made by author

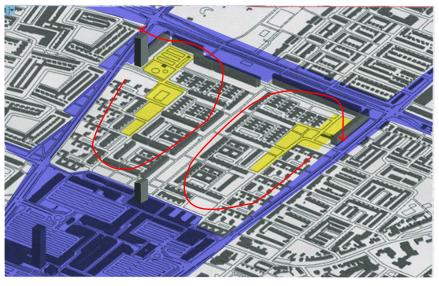


FIG. 1.236 Analysis volumetric articulation scales and in relation to context Source: Made by author (data source: ICC 2020, openmaps 2020, google maps)

Place case study Montbau, Barcelona, Spain

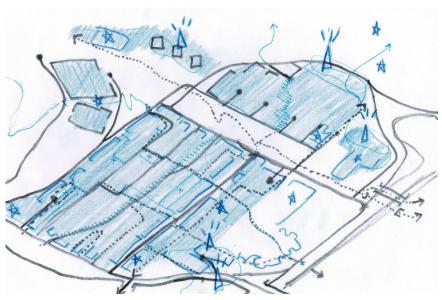


FIG. 1.239 Cognitive map of Montbau, location from the user. Source: made by author (observation, site visiting)

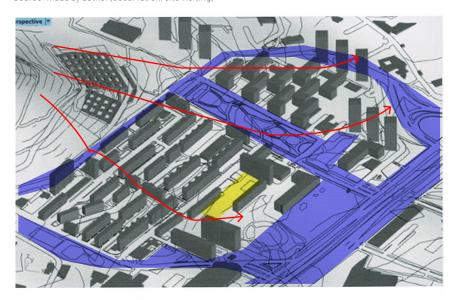


FIG. 1.240 Analysis volumetric articulation scales and in relation to context Source: Made by author (data source: ICC 2020, openmaps 2020, google maps)

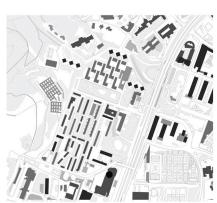


FIG. 1.241 Analysis heights and granulometry Source: made by author

Place configuration

Type, Block, Group, Place

Place case study 't Hool, Eindhoven, the Netherlands



FIG. 1.242 Place analysis of 't Hool, Eindhoven, the Netherlands. Source: Made by author (data source: ICC 2020, openmaps 2020, google maps)

Place case study Montbau, Barcelona, Spain

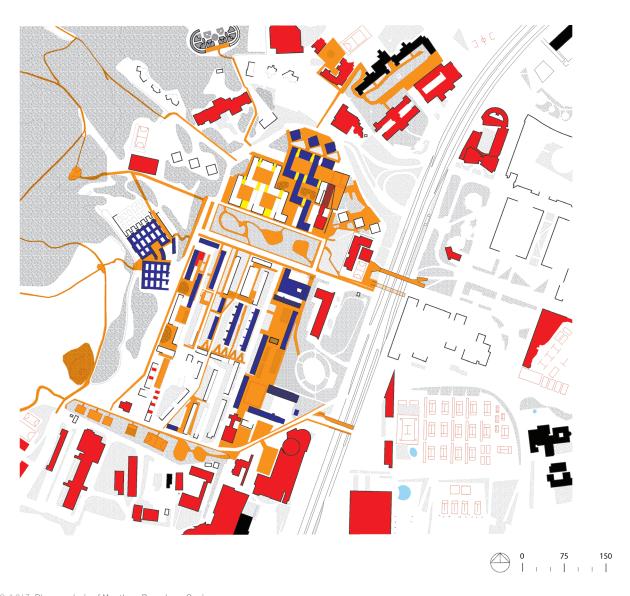


FIG. 1.243 Place analysis of Montbau, Barcelona, Spain.
Source: Made by author (data source: ICC 2020, openmaps 2020, google maps)

Appendix Part I

Chapter 2: Atlas of the Open Society and its five Critical Cartographies

Cartography Technology and Networks

Technology, communication networks

During the 1950s and 1960s, technologies were especially linked to engineering and transportation. When the car boom arrived, (which can be seen in the proposals), especially in 'Thool, many parking spaces began to be generated within the urbanization organization proposal.

Today, we no longer understand technology from an engineering perspective, but due to communications and the flow of information that is currently within our reach, we understand this in another way: both mobility, consumer, and communications networks. that allow us to be connected locally and globally.

Therefore, we analyze the two proposals in relation to mobility and the use of digital networks in the place.

Case study t' Hool, Eindhoven, NED.

Webpages, Online official reports and reserach, Surveys, online social platforms, etc.

Stichting 't Hool Tooking Took I stiedended pare in findered on parent by pollution of a stiedended p

Communication (difusion)

electrones togetops

informal digital networks: Activities, natural surveilance

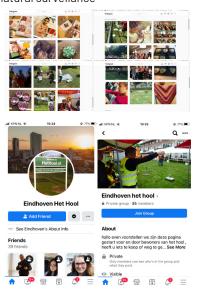


FIG. 1.244 Cataloge of digital platforms (official and informal)
Source: screeshots by author (data source credits: original sources)

As we can see, the generation of information, digital platforms and communication networks have made it possible to solve some aspects that the proposals lacked, such as insecure spaces. These potentially unsafe spaces can currently be monitored and shared with the community generating platforms such as Facebook, WhatsApp, or other media, platforms that allow users to be notified, in this case neighbors.

In addition there is a great interest in the diffusion and interrelation in both places. The official websites of the places (associations, groups, etc.) appear with all the information related to the proposals offered by the entities that manage them. Finally, what I find interesting is the relationship of these technologies with culture, sports, and human activity. As we can see, in both cases many cultural events are promoted that link all the organizations, or individual or private organizations in the form of specific meetings in different places that are in the proposals.

Case study Montbau, Barcelona, ESP.

Webpages, Online official reports and reserach, Surveys, online social platforms, etc.

Communication (difusion)



Informal digital networks: Activities, natural surveilance

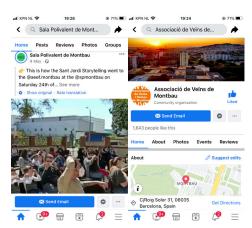


FIG. 1.245 Cataloge of digital platforms (official and informal) Source: screeshots by author (data source credits: original sources)

Mobility and networks

Finally, an analysis around accessibility and mobility of public transport<, in which the main mobility networks, the points and nodes and their character, multinodal or nodal analysis and the area of influence of the points, the stations of the different public and private transports and how this works.

Case study t' Hool, Eindhoven, NED.

In the case of Montbau, we see that there is great accessibility at the level of public transport, although the topography creates internal mobility difficulties.



Network systems

FIG. 1.248 Nodes connectivity analysis Source: Made by author (data source: ICC 2020,

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Public network analysis

FIG. 1.247 Accessibility analysis Source: Made by author (data source: ICC 2020, openmaps 2020, google maps)



FIG. 1.246 Infraestructure analysis
Made by author (data source: ICC 2020, openmaps 2020, google maps)

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Case study Montbau, Barcelona, ESP.

In the case of 'Thool, the action is located near a public bus transport, but it does not have the diversity of transport that Montbau has, nor the integration of the neighbourhood within this system. The stops are peripheral, on the peripheral roads,

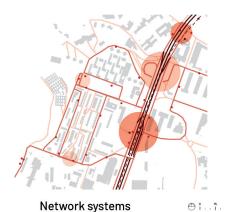


FIG. 1.251 Nodes connectivity analysis Source: Made by author (data source: ICC 2020, openmaps 2020, google maps)

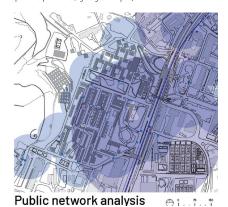


FIG. 1.250 Accessibility analysis Source: Made by author (data source: ICC 2020, openmaps 2020, google maps)

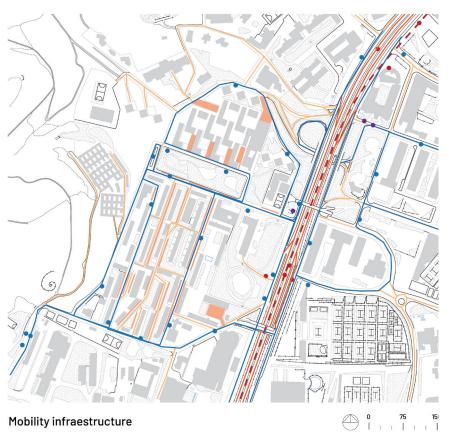


FIG. 1.249 Infraestructure analysis Source: Made by author (data source: ICC 2020, openmaps 2020, google maps)

Appendix Part II

Chapter 5: We live together, we should work togheter.

A pattern Language Workshop, TU Delft 2021.							
A pattern language approach – Transforming scientific knowledge into tools for design and planning							
MSc U Graduation Exploration Intensive							
Tutors:							
Machiel van Dorst Professor of Environmental Behaviour and Design in the section of Urban Studies.							
Remon Rooij is Associate Professor in the section of Spatial Planning & Strategy.							
Birgit Hausleitner is lecturer of Urban Design in the section Urban Design.							

A Pattern Language Workshop

Reflection on "A pattern Language Intensive" Workshop 2021, TU delft:

The Pattern language is part of my final graduation project as a tool for dialogue and communication for the innovation and flourishing of our societies through design.

My research focuses on a method to bridge the gap between theory and practice. The proposed methodology is a double revision (conceptual and empirical) and crossed, of the concept to be studied and its effects on the built environment in different countries, in my case two European countries. Pattern language is a methodology that allows bridging theory and practice. It has been very enriching to work in this intensive workshop to understand how it works and to see similarities to my project.

The concept investigated is Open Society, introduced by Bakema at the Otterlo'59 meeting and later developed by C. Alexander. Their approach to the environment and scales, starts to sketch a relational approach and it is transformed into 64 principles for the open society, these principles show similarities with network and systems thinking.

For this reason, I understand that Bakema saw architecture-urbanism as an instrument for the expression of human life and process (society) (Van de Heuvel, 2019). The topics that categorize the principles and patterns are based on a holistic approach that is described in 5 critical cartographies, which combine and contrast both quantitative and qualitative data, which will serve for later critical reflection in two European countries. So, to transfer and contribute with knowledge to the common pool.

The format of the patterns used in the workshop is quite successful, since it distills the most essential elements of each pattern into verbal-visual information, providing a theoretical basis and practical implications, and above all, it highlights the relationships with other patterns (Rooij, R.; Van Dorst, M 2020). This simple but intelligent scheme allows us to work and understand the complexity and dynamism of systems and network thinking and, above all, its use as a rational tool for communication and dialogue between various subjects with different perspectives. This simplicity, as mentioned in several articles about Alexander, can be found in the simplicity of the computer system's programming language. Observing the great evolution of this, reaching the levels of artificial intelligence until today. Technology has shown us its great potential, and it is easy to imagine that humans will be able to invest more time in seeking self-fulfillment or happiness. For this reason, it seems interesting to me to introduce the philosophical concept of the good life (Aristotle) and Care of the self (Foucault) to be able to practice it (operationalise) from here I expanded the format with evaluation tools following the Maslow pyramid, different types of patterns that they intervene in the built environment and in the process and a compatibility tool for the dialogue between oneself, with the context or with others.

After studying and graduating as an architect in Barcelona, I have worked 8 years in three very different countries and contexts that have allowed me to know and

understand the personality, experience, and values behind each designer. Due to the existing capitalist models, based on economic benefits and performance, etc. (Dorvey, 1990) makes a study with a vocation of service to society and the planet difficult and unprofitable. In my experience, the three studies talked a lot about the importance and responsibility of the urban planner towards society and this implies to a greater extent a will or development of virtues that allow achieving an impact aligned with human values. The economic factor and the great mass of projects move capitalism (Dorvey, 1990) makes it difficult to be coherent in practice with the values. For this reason, it is important to strengthen the virtues to impact society with added value.

Our life itself is a process of continuous learning, which in my opinion is aimed at flourishing or self-realization. The creativity and openness of the child learns while playing (A. Van Eyck) alone or in a group, suggests that it is an excellent relationship and learning tool. For this reason, I think that the pattern language is perfect as a tool to transfer information and knowledge from one to another, to play and learn together by exploring (Co-creation).

In addition, it allows you to deconstruct the complexity and dynamism of today's built environment into simple principles or patterns that allow us to understand the various layers of built environments and their interrelationships. Providing visual clarity and explanatory text, based on theoretical principles and triggered by practical considerations (Rooij, R., Van Dorst, M., 2020). The structure and method make it very easy to use and communicate between different disciplines and actors.

The only criticism to the "enemies" (Dorvey, 1990) that I make after much observing, is that an excessive confidence in the experience and the efficacy of what has been learned from the individual perspective as an "expert" can lead us to bias and lack of spontaneity, creativity, and innovative solutions.

Each urban planner, when he gets involved in a project, continues a dialogue that began before another, articulates it with others that he had been working on, it is not a blank paper, so each professional has his toolbox in different ways, experience (using lessons learned and proven experiments), forces you to maintain a dialogue, learn, reflect and teach.

Key words: Open Society, co-design, pattern language, Flourishing

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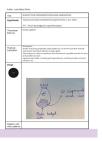
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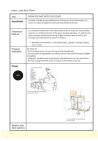
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		Cognitive needs (creativity and self- expression)	Psycological needs		Basic needs			
		Self-realiz	Self-realiz Esteem needs : Love and belonging		safety needs	: Physiological needs		
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	S- Type							
-	Geography							
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Altlas open society and its 5 critical cartographies	Socio-economics							
	XL- Place	A ! !:-+!			: d 4-d 4: 4-			
	L- Group	As a holistic approach is already complex since the beginning and takes time to peal each						
	M- Block	principle in the different patterns within, process of deconstruction takes time. Maybe better to						
	S- Type	start from the simplicity of the patterns, however it feels that in this very complex projects you						
		would never	end. Already one singl	e pattern has many int	errelation within the to	pic, thus if you		
	B. Environment and scales	multiply by se	veral topics it grows i	n number exponentiall	y.			
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	L- Group	We observe	that most of the pa	tterns already exist	, noting new. Maybe	the		
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	S- Type	etc.).			,	, ,		
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	XL- Place							
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Category: History









Category: Geography









Category: Socioeconomics

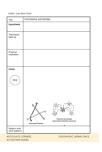






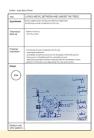


Category: Built Env. and Scales









Category: Thec. and Networks

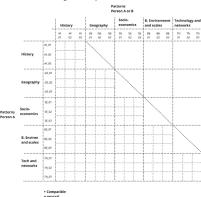
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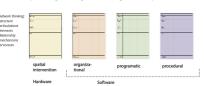
A Pattern language for:

OPEN SOCIETY (64 principles base in: identity, association, cluster and mobility) /
The practice of the good life in a PLANETARY SOCIETY

Compatibility: this would be an example compatibility assessment with my-self and the context, but if use this tool to see the compatibility of my patterns with Noa o Anne I would get incompatibilities



For categories of patterns to address hard and soft qualities of space: spatial arragement, organizational, programatic and procedural.



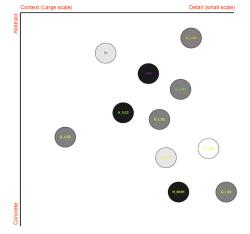
The compatibility assesment would be a way to evaluate the degree of compatibility and interrelation between fields or topics.

Inspired by C.Price (or Mc. Harg) in the compatibility or suitability tool can provide a possible compatibility, non-compatibility, and neutral. This compatibility old allow us to see possible interrelations or no interference of patterns and even conflicting relations.

Since is nature of an open framework (holistic) I can relate to many of the other fields of expertise in the classroom, heritage, urban metabolism, urban fabrics, etc. for example:

Within my patterns I only find compatibilities however when I look into other classmates I start to detect incompatibilities or neutral which will lead to discussion and dialogue. For example:

soil is sacred (NOA te HUIS) 5C-Mo-02 - Different levels Anne van den berg

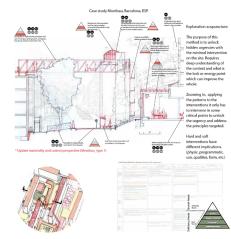


Pattern field observations;

Most of my patterns are clustered depending the categorisation of it (spatial, procedural, etc.)

Most of the patterns are spatial arrangements (hardware) which are on the concrete part going from large strategic principles to specific materiality.

Process patterns and status of development: i-intuition o-observation





That would be and example of how the spatial and programatic, organisational and procedural patterns are applied.

Following the guidelines and applying urban acupuncture with a minimal intervention unlock and make big positive impact.

That would be and example of how the organizational and procedural patterns are found and unfold during the design process and life cycle of the PROJECT as a timeframe in a continuous process of iteration in-out expanded in time "history".

