

# Temporal Constructed Refugia

*Towards New Urban Imaginaries*

hybridity | temporality | reconfiguration | regeneration | human condition



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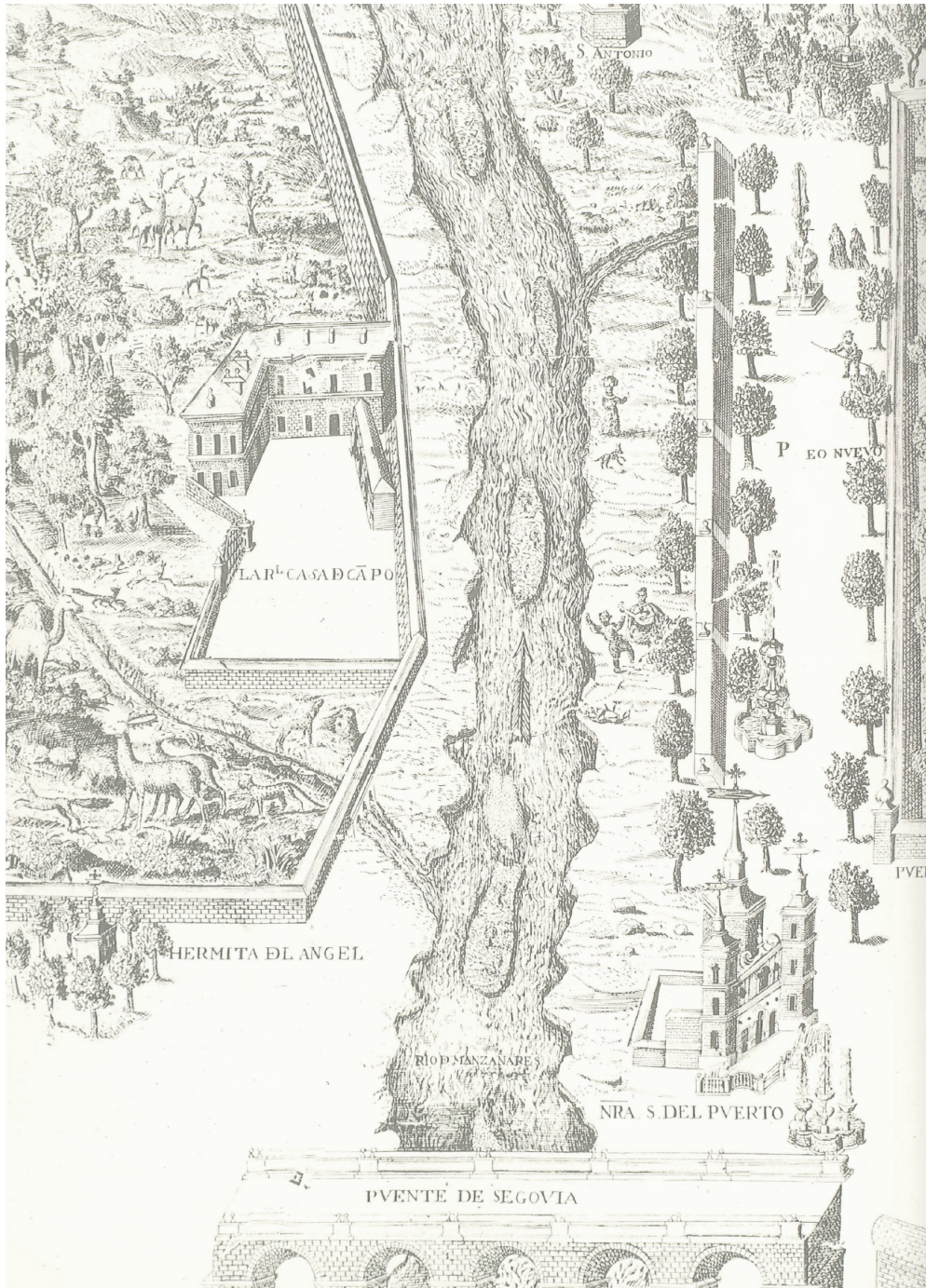
## Abstract

Keywords:

hybridity | temporality | reconfiguration | regeneration | human condition

The Anthropocene has profoundly changed the **relationship between humans and their environment**, blurring the boundaries between **culture and nature** and exerting both physical and psychological impacts. This research takes the urban context of Madrid- as one of the most effected metropolitan cities by urban heat island effect— as a lens to investigate the notion of refuge in the contemporary city. Through a hybrid approach that links multiple domains of knowledge, the work explores **typological and morphological thresholds**, their boundaries and implications on the **human condition** in the city. Simultaneously, it reconsiders the notion of ‘natural environment’ of human in contemporary urbanity and explores what it means to reconnect with nature and integrate natural elements into the dense, anthropogenic landscape of Madrid. It centres on an investigation of the **intersection of space, time and body**, framed by the **dichotomies of human existence itself**. The project confronts changing environmental conditions and questions the role of architecture in the design of open, enduring, and body-centric places. Ultimately, it aims to reveal the potential of architectural design as a medium for **provide new forms of refuge** within the urban fabric of Madrid.

A Garden of Eden on the left  
A royal garden on the right  
And in-between?



F2 | Detail  
complete Map F3

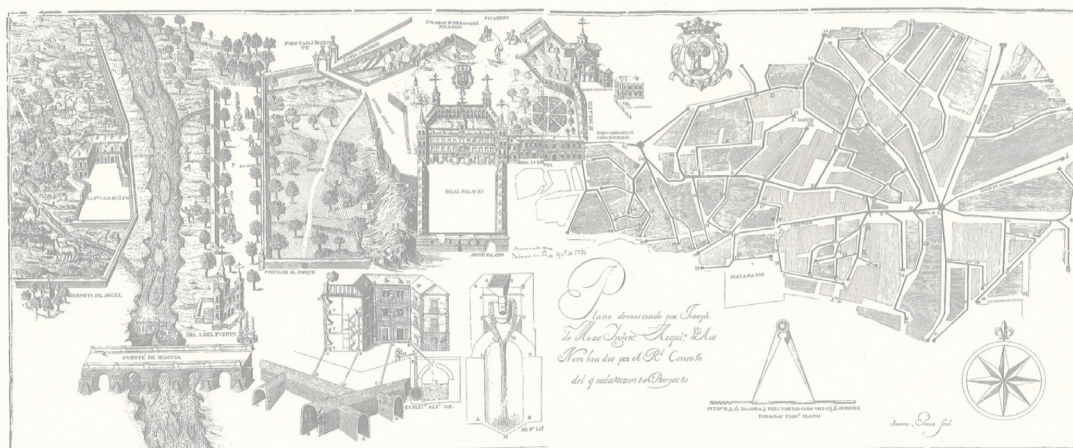
## INTRODUCTION

The historical map shows a **area abounding with exotic animals and plants** on the left and a section of a royal garden on the right. The scene is **clearly separated** by the turbulent river flowing through the map's center, a natural boundary that creates a clear separation between the two areas. Walls erected on both sides of the river reinforce a certain **exclusivity**, creating barriers that make the depicted garden seem even more beyond reach. At the boundary of this garden stands a **solitary house**, which further isolates itself from the adjacent garden through the use of surrounding walls.

Neither the secluded area nor the expansive left side of the map shows any trace of human presence. Only at one point, there is an indication of a possible passage between the two realms: a bridge depicted at the lower edge of the map offers a crossing over the torrent river. <sup>1</sup> The **presence of water has been a decisive force in shaping Madrid** since its foundation. According to Oliver Asín (Asín, 1959), the name of Madrid originates from 'mayras', a technique used by the Muslims to channel the underground water, also called system of qanats.

„I was built upon water, My walls of fire are, This is my insignia and my crest.“ <sup>2</sup>

This quote is Madrid's ancient motto that dates to the 12th century and refers to the **abundance of underground streams**. While the quote speaks of the city's origins, there is little left of its original power and presence nowadays. Evident in the constructed walls, system of fountains, and sewer systems, the map already reveals humanity's drive to control nature through **technology**-reflecting the effort to meet fundamental needs for security and reliable water provision for the population. The Manzanares River has been largely straightened, is nowadays strictly controlled by the Canal de Isabel II water company, and no longer represents the torrent of water shown in the drawing.



### 1 | comment

The historical map depicts on the left side the Casa de Campo in Madrid, one of the largest urban parks in Europe.

Originally this site was used for hunting and recreation by the Monarchy before being opened to the public in 1931. The solitary house depicted was used as a country house („casa de campo“) that gave its name to the adjacent park.

### 2 | Original quote

“Fui sobre agua edificada, mis muros de fuego son, esta es mi insignia y blasón.”

- Cervera, C. (2015)

### F3 | Complete Plan

Madrid, Sewerage project plan from the 18th century demonstrated by the engineer and architect Joseph de Arce.

Municipal Museum of Madrid  
Engraving. m. 87 x 40 cm

Looking at this **historical private retreat** raises questions about the exclusivity and **accessibility** of these places and questions the actors who are entitled to seek refuge in a contemporary city. This inquiry becomes increasingly relevant as temperatures in Madrid continue to rise, with the urban core experiencing heat levels that are 8.5°C higher than those in surrounding rural areas (Arup, 2024). According to Spain's National Institute of Statistics, one in three households with children **cannot afford a week's vacation**, effectively limiting the opportunity to escape the city to the wealthier segments of society. The implementation of climate shelters, which have already been established in Barcelona through public facilities, remains inadequate in Madrid (Puentes, 2014). Protests in the city for an appropriate institutional response to rising temperatures are growing louder, and citizen initiatives are emerging to provide temporary solutions to provide **temporal refuge from heat stress**.<sup>3</sup> Madrid has experienced substantial **population growth** in recent years, leading to both the city's expansion—evident in the increased areas of sealed soil (García, 2014)—and the densification of certain neighborhoods. For example, Arganzuela in the south is now one of Europe's most densely populated districts, where residents report daily frustrations with overcrowding (Peinado, 2020). It seems an appropriate time to question the **role of sanctuaries** within the city. This prompts an examination of the role of public institutions, but equally importantly, it raises the question of appropriate siting and design in urban spaces that provide not only physical relief but also psychological support in coping with **heightened environmental stress**.

### 3 | Newspaper article

Extreme heat in Madrid: citizens create their own climate shelters in response to limited institutional action.

(Maldita.es, 2024)

The research explores how a **reconnection to the natural elements**, such as water—which once strongly defined the city—could help address the challenges posed by environmental changes.

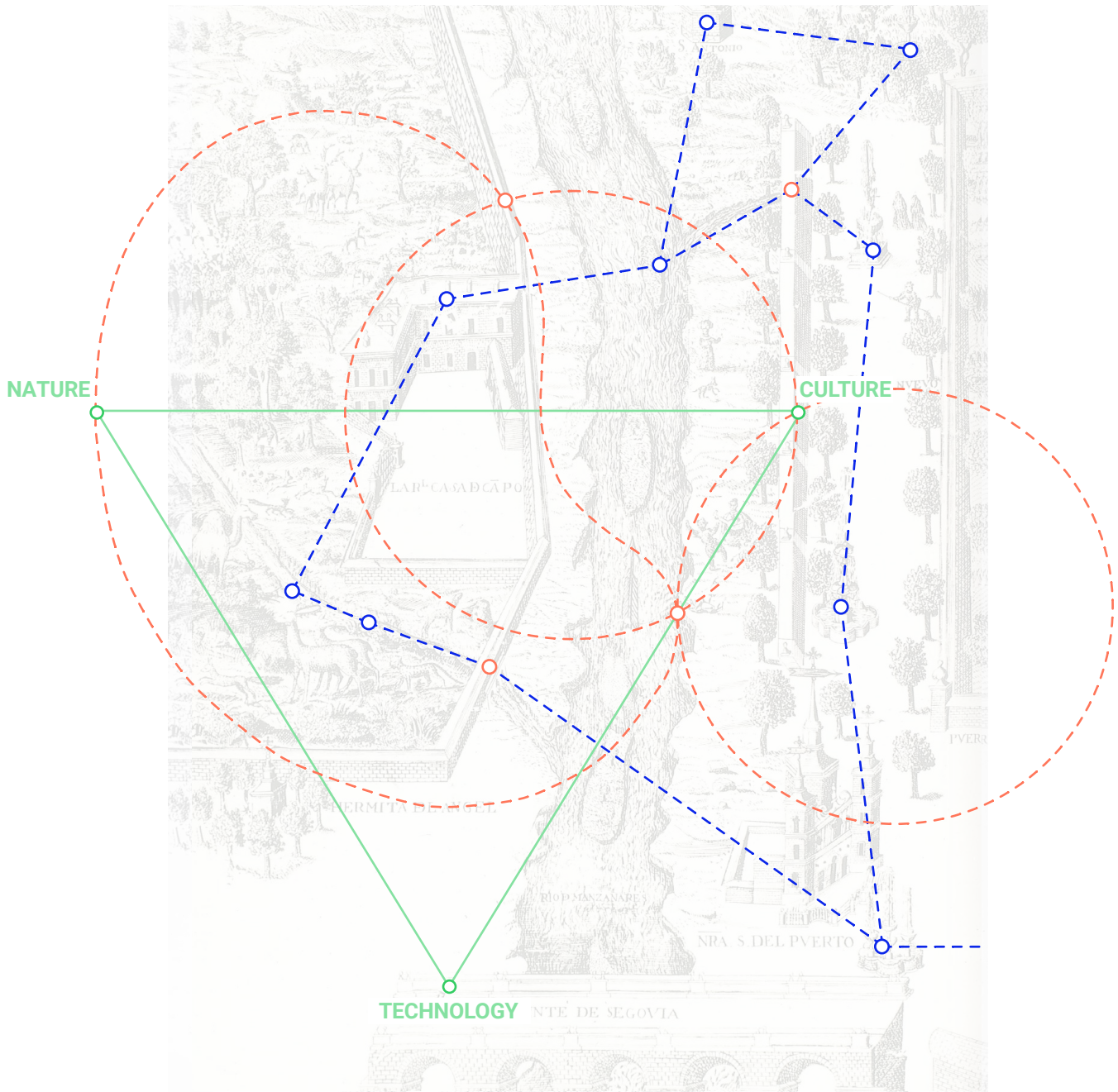
Using the detail of the historical map (F2) and examining it through an ontological lens, I have identified several **intersecting systems** that formed the starting point of my research and lead me through my main research question:

## MAIN RESEARCH QUESTION

What if the **need for contemporary refugia** could fundamentally reconfigure the **balance between human and non-human**? How can design enter this balancing act to create **heterogeneous places of regeneration**?

# ONTOLOGICAL ANALYSIS

Of the historical map



## F4 | Layered Approach

Defining the research question through an ontological lens

Approaching the main research question successfully will require at first understanding the systems related to the subject of refugia. By posing **operational questions** and identifying several intersecting systems in the historical map (F2) I developed further questions, that will be adressed in the following research:

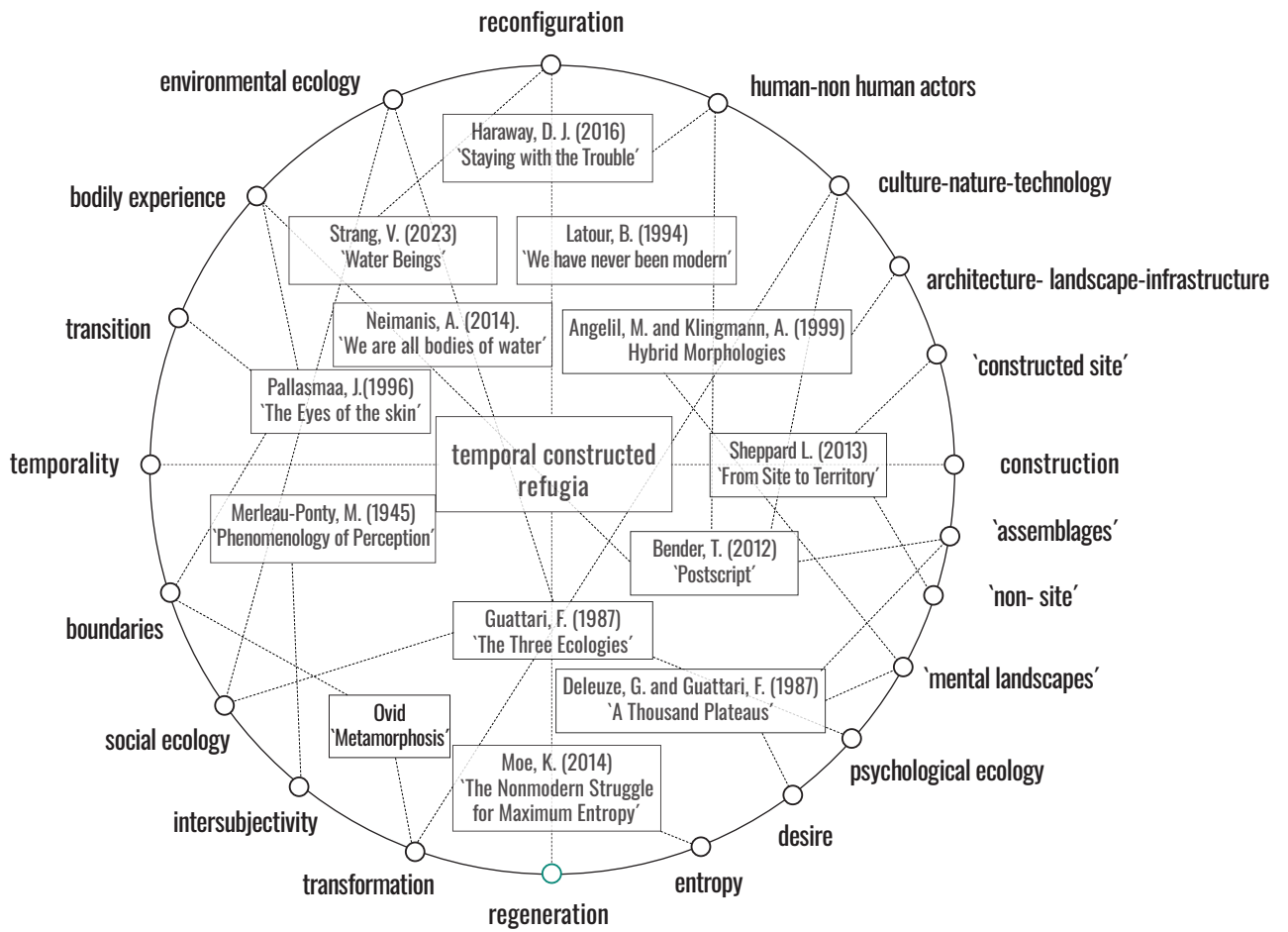
#### OPERATIONAL RESEARCH QUESTIONS

- 
- ..... **What** can be seen as a refugium?
- ..... **When** does it occur?
- ..... **From where** can you enter it?
- ..... **To where** can you enter it?
- ..... **Who needs** them?
- ..... **Who constructs** them?

#### SECONDARY RESEARCH QUESTIONS

- 
- ..... What significance do the **boundaries** of refugia hold in facilitating transitions through **physical and psychological** spheres?
- ..... What if we rethink the **natural environment of human** and consider refugia as the **new human condition**?
- ..... How can **hybrid morphologies** activate and connect **systems of ecologies** to create **multilayered regenerative places**?

# THEORETICAL RESEARCH DIAGRAM



F5 | Theoretical framework diagram

## THEORETICAL FRAMEWORK

Addressing the ambiguous space of refugia in its complexity presents to me a particularly interesting research, one that appears to have received limited attention in existing literature. This gap has prompted me to develop a **multidisciplinary framework** in order to understand the intricate relationships at play.

I define a refugium as an abstract yet concrete threshold where various conditions—**spatial, ecological, cultural, or spiritual**—intersect and collide. It represents a space of transformation, much like the concept of **metamorphosis** in Ovid's work.<sup>4</sup>

As implied in the walls in the historical map (F2), refugia are consistently **set apart** from the ordinary environment to maintain their unique, intensive quality of a specific material. Reaching this distinct realm seems to require crossing these **boundaries** or transitioning from one extreme condition to another.

The **sequencing of spaces** could be described by the concept of the bodily experience (Pallasmaa, 1996) that is emphasizing the importance of all human senses in order to fully engage with the environment. In his opinion architecture can accommodate these transitional stages in space and time through providing these experiential dimensions.

Both terms „**refugium**“ and „**regeneration**“ have their roots in biology and relate to natural processes within ecosystems. While regeneration includes an active component, it also has a passive connotation that pertains to the biological processes of renewal or regrowth. In this context, I primarily focus on the latter meaning, emphasizing the importance of **passive processes** that unfold naturally and at their own pace within refugia.

This leads to an exploration of the notion of **deceleration as a key aspect of refugia**. Pallasmaa argues that contemporary individuals often experience the „acceleration of speed“ characteristic of the 19th century, and he posits that architecture has the potential to facilitate experiential encounters with a „slow, healing flow of time.“ (Pallasmaa, 1996)

To address the subjective nature of personal refugia, I draw on Merleau-Ponty's concept of „**intersubjectivity**“ (Merleau-Ponty, 1945), which emphasizes that individual experiences should not be viewed in isolation but rather understood in relation to others.

4 | „metamorphosis“

mythological tales that illustrate transformations in various forms—often serving as metaphors for broader themes of change

*„To desire is to construct an assemblage“*

This **interrelatedness** of individual experiences, social interactions, and environmental contexts is also evident in Guattari’s work (Guattari, 1987). By referencing his concept of the **three ecologies** I aim to emphasize the dynamic nature of these complex environments that are not only physical spaces but also psychological and social constructs. As noted by Deleuze and Guattari(1987), desire can be seen as a „force that constantly reshapes the world“. I aim to incorporate desire as a dynamic agent in my analysis, linking it to refugia as not merely physical spaces, but as psychological and social constructs as well. Understanding refugia through this lens—as interconnected, evolving networks—aligns with Deleuze and Guattari’s view of desire as a “productive force” that enables new possibilities and assemblages.

Adopting a **process-oriented approach**, I recognize the temporal dimension of refugia, as reflected in the title. This perspective includes not only the momentary experience of refuge but also the **evolution of these spaces** in response to the changing needs of their surrounding environment. According to Maslow’s hierarchy of needs(Maslow, 1943), fundamental human needs are relatively unchanging. The ways societies have historically and culturally responded to changing environmental conditions, however, may vary significantly, influencing how refugia have been shaped to meet these essential needs over time. Examining this classic representation of human needs led me to ask where intersecting regenerative processes—those that restore essential human resources like energy—would fit within the hierarchy.

Kil Moe describes cities as “pulsing” systems of **matter and energy** (Moe, 2014). Adopting his view of treating energy not only as commodity to be maximized but rather as something that should be considered in its broader ecological context, I am focussing hereby for now on the **thermodynamic system of the human body**.

Referring to the concept of **bodies of water** seeing human bodys as an unseparable integral part of the water system and therefore of the natural environment( Neimanis, 2014). Examining the role of water highlights its regenerative potential through embodied energy—not only as physical energy sources but as elements with transformative, cyclical qualities that shift through various states and forms.

Today, water systems like the Manzanares River are highly engineered, channeled, and controlled, altering water’s cyclical flow into a **more linear, regulated path**. Much of the city’s water infrastructure is now hidden underground, making it less visible and accessible.

F6 | Fuente de la Salud en el Parque del Oeste



However, the **historic network of fountains**, which is also represented in the map F2, remains prominent in Madrid's urban landscape. These fountains once served as **cultural and spiritual landmarks** and were integral to the city's cultural heritage. The annual pilgrimage to the San Isidro fountain, believed to possess miraculous properties (De Durango, 2018), is one example of a tradition that grew around these water sources. This and other traditions around water, emphasize not only the water's physical significance but also highlights the social and cultural and even spiritual energy it embodies as described by the anthropologist Veronica Strang. Her work 'Water Beings: From Nature Worship to the Environmental Crisis' explores the significance of humanity's evolving relationships with water and positions water beings as potent symbols that can serve to **reconfigure the relation of human and non-human** (Strang, 2023).<sup>7</sup>

7 | reconfiguration

„The process of making a new or different arrangement or pattern of a group of related things“

- Cambridge Dictionary

Seeing water infrastructure as a „hybrid morphology“, that connects the natural landscape with the cityscape I see the potential to apply the approach of the “dissolution of traditionally established categories” (Angelil & Klingmann, 1999) to the topic. By questioning the **relationship between landscape, architecture and infrastructure** I am also reconsidering the relation from the landscape and the built environment as such. Exploring the spaces that get created where different morphologies interact and examining the emerging thresholds, might eventually lead to discovery of certain

## OUTLINE OF POTENTIAL

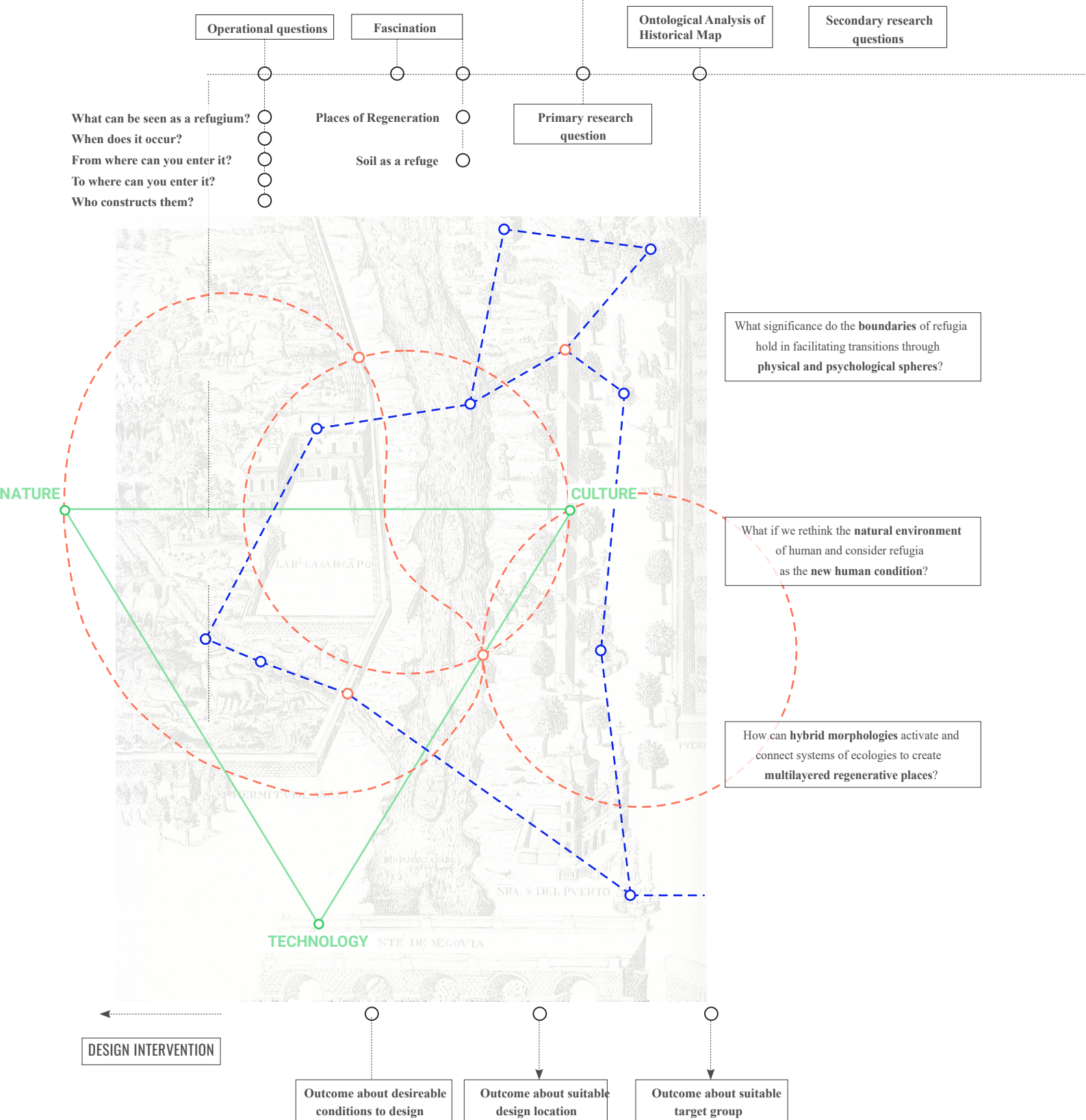
*“Dull, inert cities, it is true, do contain the seeds of their own destruction and little else. But lively, diverse, intense cities contain the seeds of their own regeneration, with energy enough to carry over for problems and needs outside themselves.”*

- Jane Jacobs

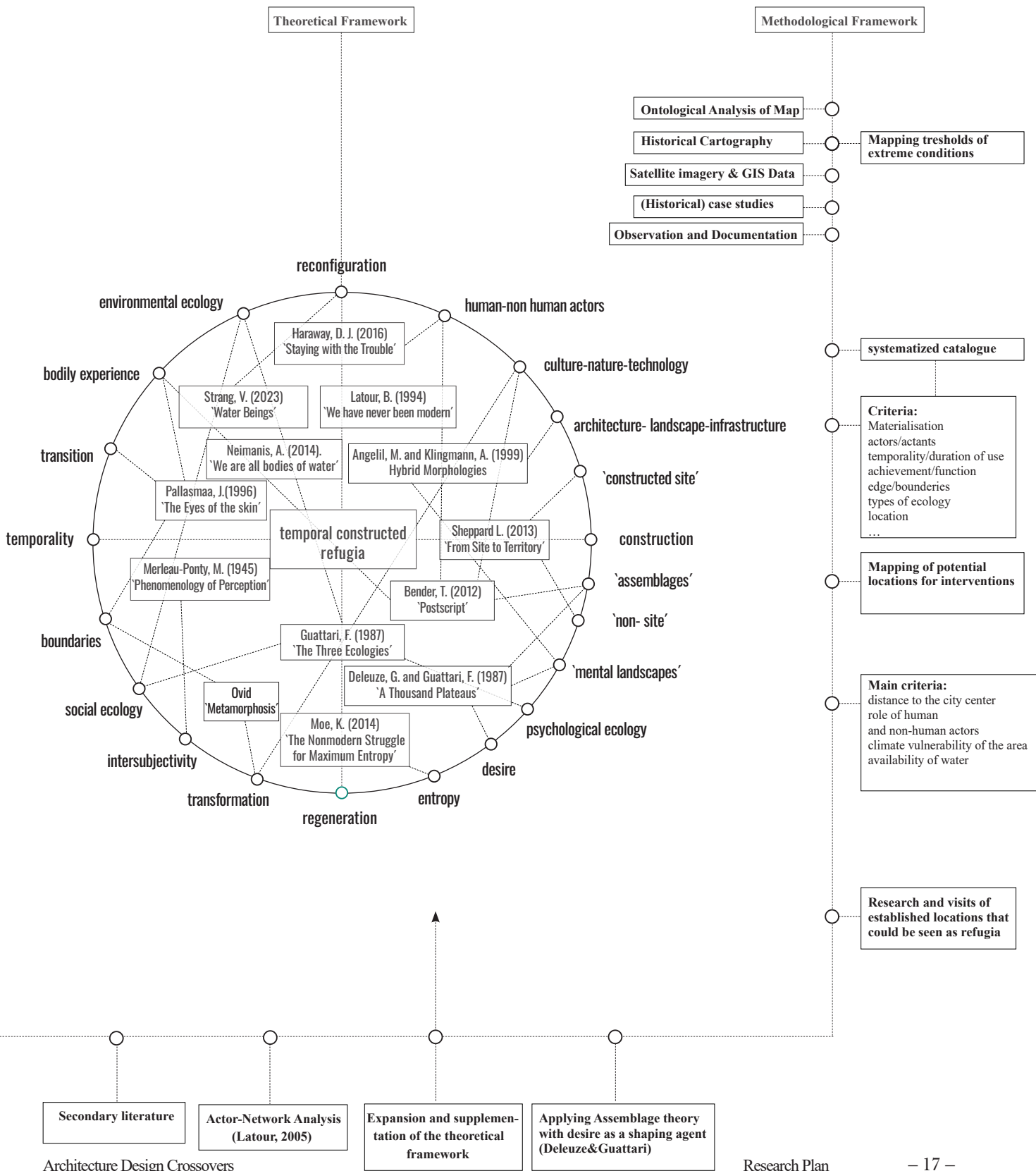
Jacobs highlights not only the **regenerative power** within cities but also addresses the crucial role of their social dimensions. A psychological approach that focuses on the individual human wellbeing, combined with an exploration of the social dimensions of refugia, may reveal their potential to support broader ecological functions of it. By identifying the “seed” of regeneration—namely, the “desire” for refuge as a **fundamental human need and therefore a formative force**—I see the potential of a reconfiguration of certain fundamental categories and assumptions. This includes a reconsideration of the **natural environment for human** and whether this necessarily includes natural landscapes or might be reimagined through **mediated spaces**. To move beyond addressing only the symptoms but also the roots of today’s environmental challenges, the research examines the evolving **relationship between technology, urban spaces, and nature**. By exploring the obscured relationship with water in Madrid the research aims to explore how a reconnection to the natural element and its embodied energy could help to **reinvent psychological urban spaces**. This exploration shifts the **dichotomy nature versus city** to a spectrum where **nature, landscape and cityscape** coexist in complex, ambiguous forms. In this context, the ambiguity of refugia itself could represent itself a potentially **new “hybrid morphology”** and might serve as a mediator between realms on a psychological and physical level. By seeing the energy that a city inhabits in its wider ecological context and including the human factor, there emerges a dual potential: for **individual renewal** and for building ecologies to create **multilayered regenerative spaces**. If refugia are indeed becoming a **fundamental condition for human life**, it becomes essential to consider the factors that will shape them. This reconfiguration of urban spaces might catalyze a shift towards a **balance between human and non-human elements**, suggesting new possibilities for a future in which the city serves both people and broader ecological systems in **regenerative, interconnected ways**. By providing temporal refuge in the city but also adapting to the evolving needs of both humans and the broader ecosystems they inhabit, refugia could form as a **new category yet to exist**.

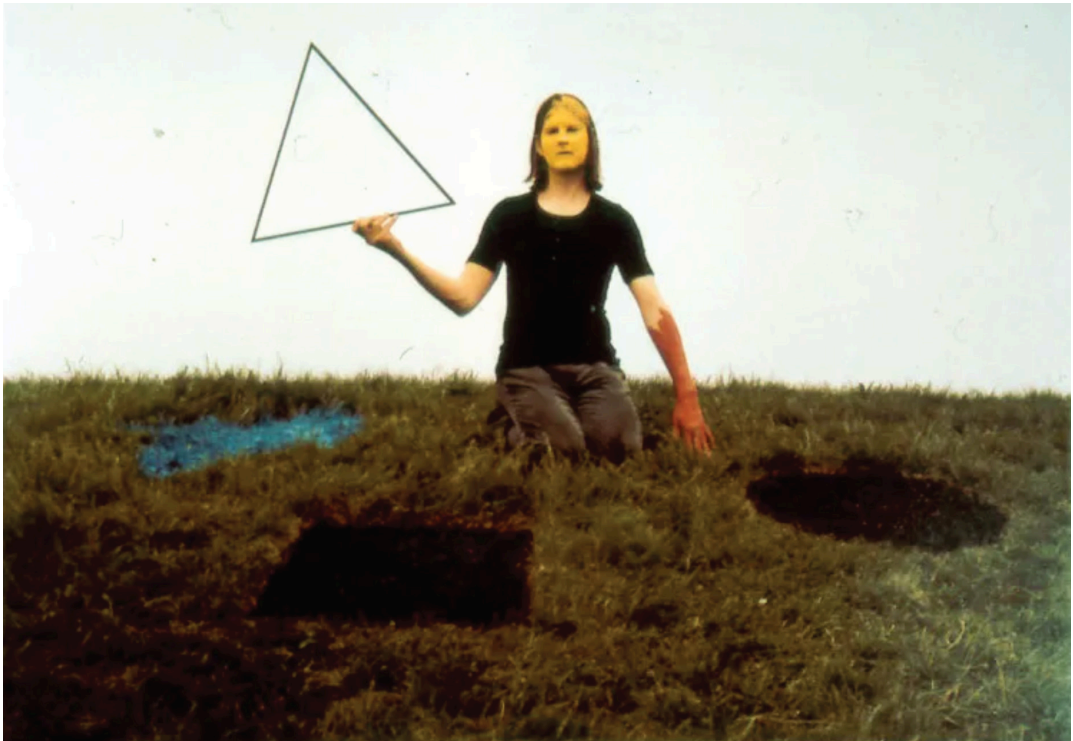
# RESEARCH DIAGRAM

What if the **need for contemporary refugia** could fundamentally **reconfigure the balance between human and non-human**?  
 How can design enter this **balancing act** to create **heterogeneous places of regeneration**?



# RESEARCH DIAGRAM





**F7 | Collage**

Sigurdur Gudmundsson |1979



## GLOSSAR

*Refugium* an area of relatively unaltered climate[...] inhabited by plants and animals during a period of continental climatic change [...] from which a new dispersion and speciation may take place after climatic readjustment

- Merriam-Webster Dictionary

*Regeneration* The act of improving a place or system, especially by making it more active or successful

The act of something growing or being grown again

- Cambridge Dictionary

...

## INTRODUCTION

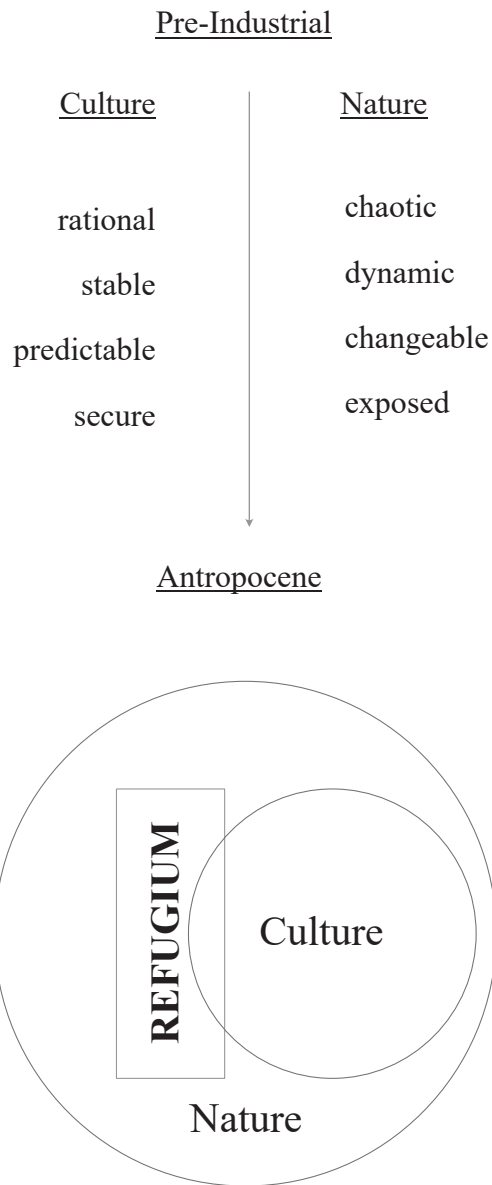
On altered laws and dependencies

*“The recognition of the Anthropocene is a signal that the nature-culture divide is coming to an end, while at the same time embodying nostalgia for that separation. “*  
*- Rodney Harrison*

The **fragility of our known world** has become undeniable, especially in light of the accelerating impacts of climate change. This emerging reality challenges the long-standing dichotomy between humans and nature and urges a re-evaluation of their intricate interdependence. Where nature was once perceived as a constant - something that can be controlled and dominated – changing natural conditions are now showing the limits of this illusion. No longer a blank canvas for human ambition, nature **resists simplistic notions of permanence and predictability**. Historically seen as governed by unalterable laws, the natural world was assumed to be separate from and subordinate to human influence. Yet today, while the fundamental principles of nature may remain unchanged, the visible manifestations of those principles have been dramatically **altered by human activity**.

This shift challenges anthropocentric worldviews and shows humanity not as a separate force, but as an **integral part of nature itself**. In the context of the Anthropocene, where cultural and natural systems are inextricably linked, humans itself must now be understood as **hybrids of culture and nature** (Teyssot, 2005). Concepts such as ‘third nature’ and ‘fourth nature,’ as explored by scholars like Bakshi and Kowarik, reflect a growing recognition of this complexity, rethinking the balance between human and ecological systems.

In this light, the very concept of a **"natural" environment** is now fundamentally in question and the growing fragility of ecological realities requires a redefinition of the spaces where ecological and human systems converge.



**Figure II**

Positioning the Refugium  
between cultural and natural  
realms

The **Refugium** is placed at the centre of the discussion—as a proxy for hybrid human existence—occupying a position at the **intersection of culture and nature**. Within this framework, it operates as both a spatial and conceptual counter-site. By focusing on typological and morphological thresholds, the research focusses on the boundaries—both physical and psychological—that shape the evolving human condition in the urban context.

The Refugium responds to a set of emerging necessities brought about by shifting environmental conditions that manifest not only in the psychological impacts of climate change, but also in the **intensified pressures of urban life**, including the accelerated temporalities and sensory overstimulation that characterise modern urbanity. It is not conceived as a retreat in the conventional sense, but rather as a **temporary condition**, in which the human body may pause, recalibrate, and momentarily withdraw from the urban condition.

While it becomes increasingly clear that humans and their natural environment are inextricably entangled, the lived experience of this relationship within the metropolitan fabric to **natural elements** becomes increasingly abstract, distant, and mediated. It is within this paradox that the Refugium takes on renewed significance. Situated at the intersection of natural and cultural realms, it raises the question of how such hybrid spaces might foster heterogeneous forms of regeneration, offering new spatial and conceptual possibilities for **reconnection with the natural world**.

The essay opens by examining spaces that can be understood as **typologies of refugia**—sites where the interplay between humans and their environment becomes legible through spatial dynamics. It focuses in particular on the **garden as a metaphor** for the human condition, exploring its potential to re-establish a connection between people and the natural world. This exploration moves from the **urban scale toward a more embodied** and experiential level of engagement throughout the rest of the essay.

In the second chapter the paper transitions to an investigation of the **morphological characteristics** of refugia, emphasizing the significance of **boundaries** and their ability to contain, protect, and define. This chapter explores especially the historical role of natural elements especially of water in the city of Madrid.

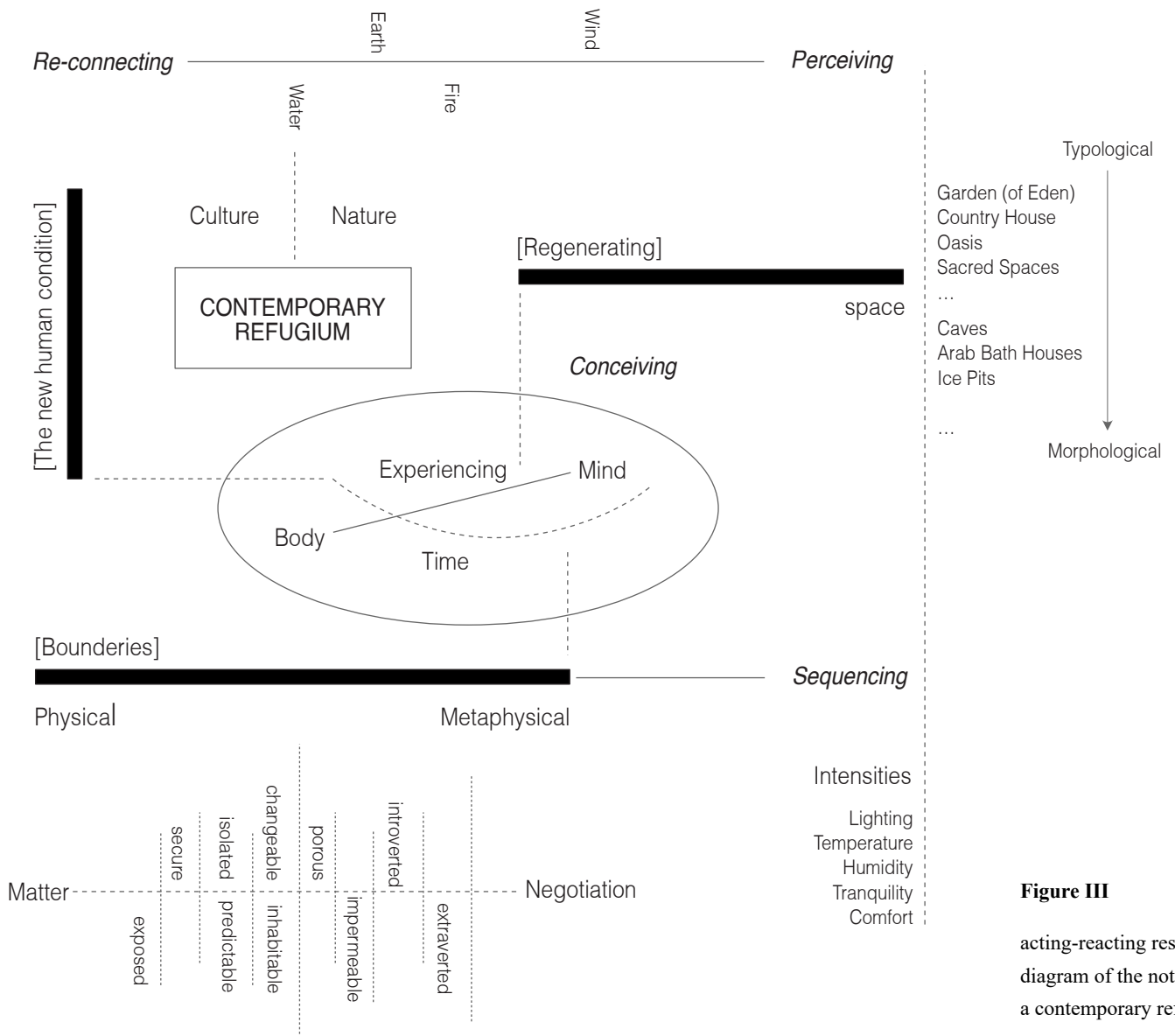
The final section focusses in particular on the contemporary human condition in an urban context, exploring how the temporal layers inherent in the idea of refugia can offer moments of **temporary escape**. Central to this discussion is the continued presence of natural elements and their ability to provide an layered, **transient experience** of refuge.

The research spans from spatial analysis to more ephemeral dimensions—from human-made constructs to organically evolved forms. The methodology is intentionally metaphysical, to grasp the wider, often abstract meanings that the idea of refuge can hold in the discussed context.

Throughout the essay, a body-centred perspective remains central, rooting the discussion in the lived, spatial experience of what might be called a **new human condition** within the in the contemporary city. As such, the essay does not aim for completeness but rather opens a space for reflection and exploration.

While the research is grounds the spatial and conceptual considerations of the Refugium within the specific context of Madrid, it aims to explore also the broader condition- the growing need for refuge in contemporary metropolitan cities and the increasing precariousness of urban life more generally.

# ACTING- REACTING DIAGRAM

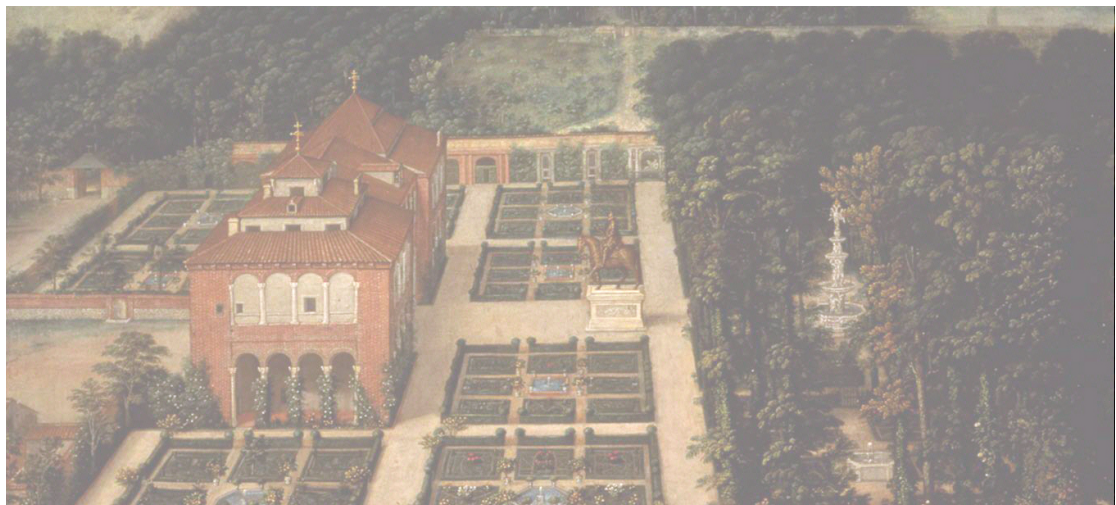


**Figure III**  
acting-reacting research diagram of the notion of a contemporary refugium

## I: THE GARDEN AS THE HUMAN CONDITION

A refugium is characterized by an abundance of a **critical material**, evoking the idea of the Garden of Eden—a symbol of boundless abundance and ultimate leisure. The access to this state is so desirable it becomes nearly unattainable. And should it ever be reached, it is so fragile that a single act—like eating a forbidden apple—can destroy it, leaving the individual exposed and vulnerable. An oasis, on the other hand, offers an intriguing analogy: while it shares certain characteristics, its appeal arises from its inevitable location within the desert—embodying both scarcity and abundance at the same time. The more extreme these **opposing conditions** are, the more valuable the state of a refugium becomes.

The entire research has been shaped from the outset by a historically significant park—the **Casa de Campo** that can be seen a historically and culturally charged urban refuge in Madrid. Originally conceived as the king’s private garden—a royal hunting and leisure ground—it was opened to the public in 1931. Inside the area a country house of the king was located, that gave the name to whole adjacent park. A closer look at this early articulation of the country house typology reveals its entangled **spatial logic**. It is positioned at a clear distance from the urban core, surrounded by nature but also at the same time **separated and protected** from it. The typology of the **holiday house** that emerges from this logic materialises several boundaries at the same time, which are still constituted today: Urban and ecological but also socio-spatially — providing the privileged part of society retreat into curated, natural spaces of leisure, seclusion and control.



**Figure IV**  
Historical Royal Country  
House  
Casa de Campo

## THE ROYAL COUNTRY HOUSE



**Figure V**  
The royal country house,  
Autumn 2024

It is within this context that we return to the broader idea of the garden as a direct translation of the **human condition** as discussed by Robert Pogue Harrison (2018). According to him, gardens have always offered sanctuary from demands of urban life. Historically, they are extensions of the domestic sphere, but only for the privileged, leisure and ownership contour their boundaries. Gardens cultivated by unhoused or economically marginalized inhabitants of New York City can be seen as a counter-narrative to this (Figure VI). These gardens that resist ownership instantiate an **alternative mode of spatial production** and are characterized by improvisation and the ephemeral. Also in Madrid, gardens have gained significant symbolic power as citizen-led alternatives, marked by a notable rise in community gardens (organized in the Red de Huertos Urbanos de Madrid (Rehdmad)) as a typology of urban green commons.

In this changing context, gardens are more than just areas of cultivation - they are interwoven with **changing ideas of nature** itself. This is particularly evident in the way nature is experienced and internalised from an early age (See Figure VII). Research shows that children's ecological perceptions are strongly influenced by their socio-cultural environment: Children who grow up in rural areas and are closer to ecological cycles tend to develop less anthropocentric perspectives than their urban counterparts (Collado, 2016). These findings emphasise that the garden is not only a spatial and social construct, but also a **formative environment** that plays a crucial role in how nature is perceived, valued and imagined across generations.

From Eden to oasis, from royal retreat to improvised urban commons, the garden traditionally seen as nature within the city—, is a place where dichotomies such as abundance and exclusion, care and control, scarcity and growth are negotiated. As a spatial expression of the human desire for retreat and reconnection with nature, it occupies a unique position between the **natural and the constructed**. Gardens have always been a place of negotiation - between cultivated order and wilderness and, increasingly, between the human need for retreat and the **pressure of urban densification**.



**Figure VI**  
Jimmy's Garden  
Photograph: Margaret  
Morton, 1991  
From *Transient Gardens,*  
*Uprooted Lives*



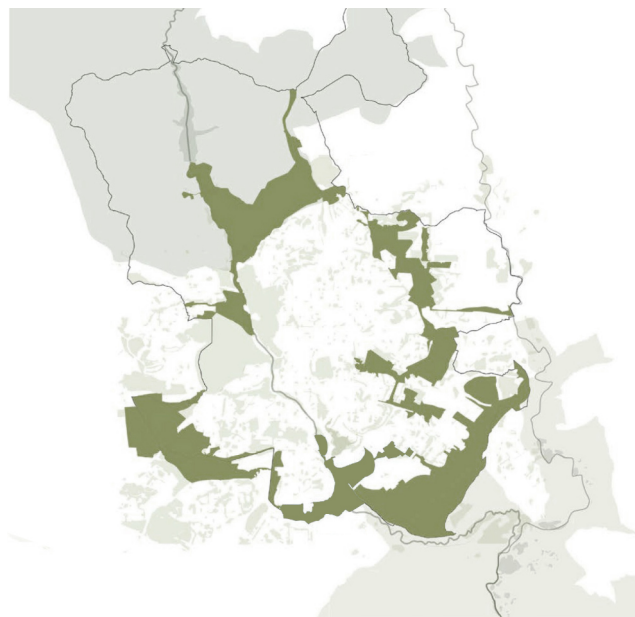
**Figure VII**  
Mural of Adelfas  
community garden in  
Madrid. 'Many small  
gardens cultivate small  
people who will change  
the world'

abundance   ultimate leisure   fragile   ...	[ Eden ]
scarcity + abundance   temporary   survival   ...	[ Oasis ]
privileged seclusion   curated nature   distant   ...	[ Country House ]
improvisation   access   ...	[ Urban Commons ]

**Figure VIII**  
Personal notions of the garden as the human condition

In the context of contemporary cities such as Madrid, this **negotiation between urban density and access to nature** becomes particularly clear. Due to spatial restrictions, most community gardens are located outside the historic city centre( Madrid’s Community Gardens, 2020) In response, two ongoing projects in Madrid exemplify a growing recognition of the **need for accessible spaces of recreation and regeneration** within closer proximity to the city’s core.

The project **Madrid Metropolitan Forest(MMF)**, encircling the city (Figure IX), operates as a zone of alienation and insulation—simultaneously a climate adaptation strategy and a space set apart from the urban core, positioned on the edge of what is typically seen as civilization (Jover, 2023). In this sense, the urban forest can be read as a **threshold space**—existing outside the everyday rhythms of the city while challenging conventional boundaries between nature and city, inside and outside.



**Figure IX**  
Map of Madrid Metropolitan Forest (MMF) encircling the city  
| Jover, 2023

The **Madrid Río renaturalisation project** shows how urban life can be reunited with natural systems by assigning varying **degrees of human influence** in the river system crossing the city. While the project seeks to restore ecological balance by giving the river back its natural rhythms (Úcar, 2022) the high retaining walls along the river stand as a **reminder of human limits**—ensuring that spontaneous disruptions do not disturb the delicate, reemerging ecosystems within the riverbed. At the same time, the planted parks along the riverbanks create a tangible threshold between the urban fabric and the reimagined natural terrain.

While addressing the ecological imperatives of climate adaptation, both projects also seek to **reconnect the urban population with local ecological systems**. While applying different approaches both the Metropolitan Forest (MMF) and Madrid Río project recognize a reconnection to **nature as a continuous, evolving process**. Borders are not lines, but zones with different permeabilities that are negotiated. This reflects a **paradigm shift** in which humans are no longer seen as actors outside or above nature, but as part of its evolving boundaries, allowing natural systems to develop over long-term ecological timescales generating “new understandings of changes” (Bakshi, 2020). Both projects propose alternative modes of integrating natural processes and **collective forms of care** into the urban fabric, challenging traditional separations between the built and the natural environment.

This chapter lays a foundation for understanding the role of **refugia on an urban level** by framing the garden as both a material and symbolic expression of the evolving human condition. It builds a conceptual bridge between the idea of the refugium and the growing need for regenerative spaces in Madrid. The garden is proposed as a metaphor for **(re-) constructed nature** in the city and as a tool for rethinking the boundaries of human interaction with the natural environment, allowing for connection, and **gradual ecological** change.



**Figure X**  
Renaturalized Madrid Río  
Project  
Source: author's images



**Figure XI**

Renaturalized Madrid Rio  
Project  
Source: author's image

## II: On Crossing Bounderies

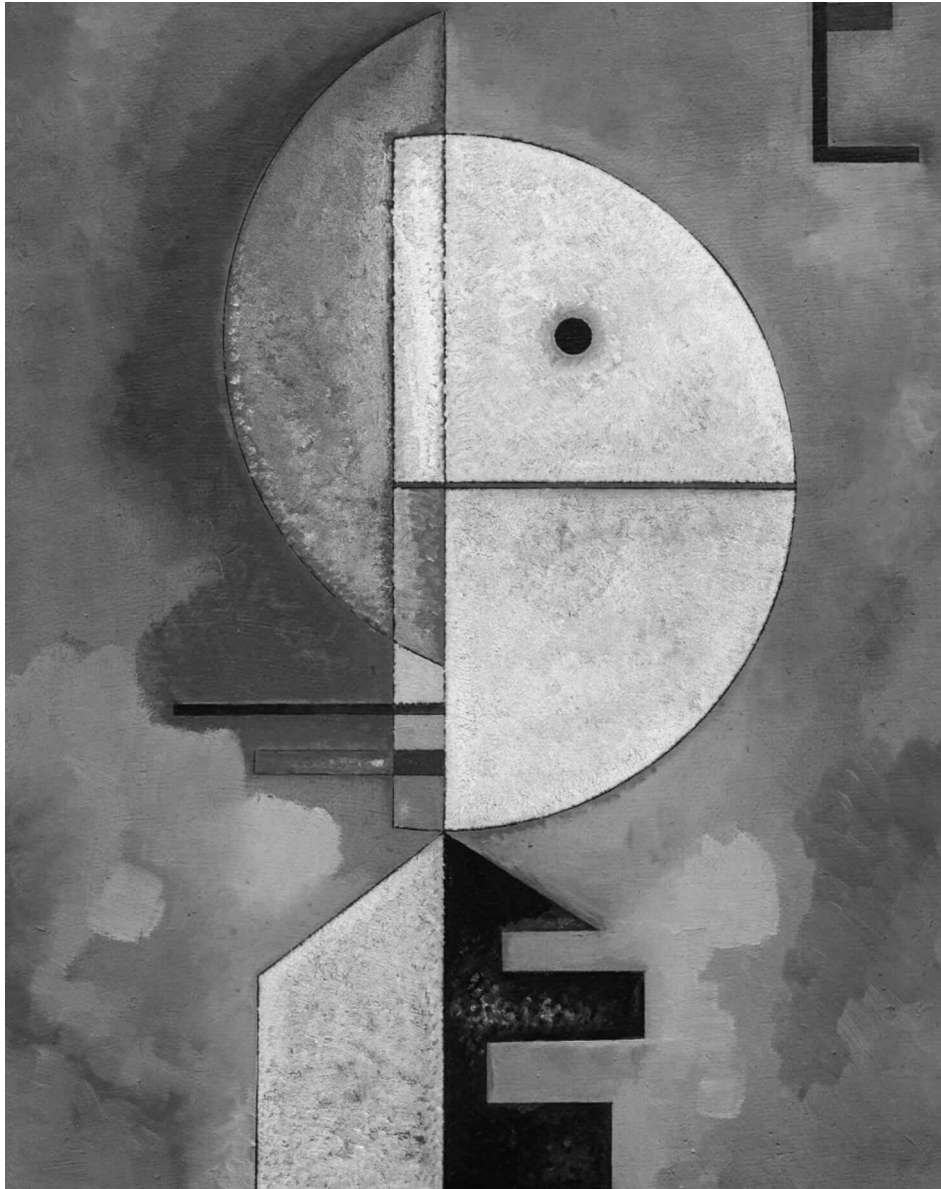
*Boundary* “A boundary is not that at which something stops but, (...) the boundary is that from which something begins its presencing”

- Heidegger, 1954

*Tresh- hold* the level or point at which you start to experience something  
a point at which something starts to happen

- Cambridge dictionary

...



**Figure XII**  
Upward by Vassily  
Kandinsky, 1929

A refugium, by its very nature, must be defined and demarcated through a **series of transitions**, limits, and morphological boundaries that emerge along the way. It is the act of crossing these thresholds - of moving from one realm to another - whether physical, perceptual or symbolic- that emphasise a refugium's role as a place of **distinctive character** within its larger context. Coming from the discussion of typologies that can be seen as urban refugia in this evolving urban landscape, the essay shifts the focus to **morphologies** located within or at the edge of the city: enclosed courtyards, shaded thresholds, and other spatial conditions shaped by thermal comfort and the need for regeneration.

The urban morphology of the historic centre of Madrid, which is characterised by **inward-facing courtyards** (See Figure XIII), reflects a distinct spatial logic of **withdrawal** from the external conditions of the city. The focus here is not on the idea of 'nature', but on the reaction to **natural conditions** such as heat, light and climate, which characterise the built environment.



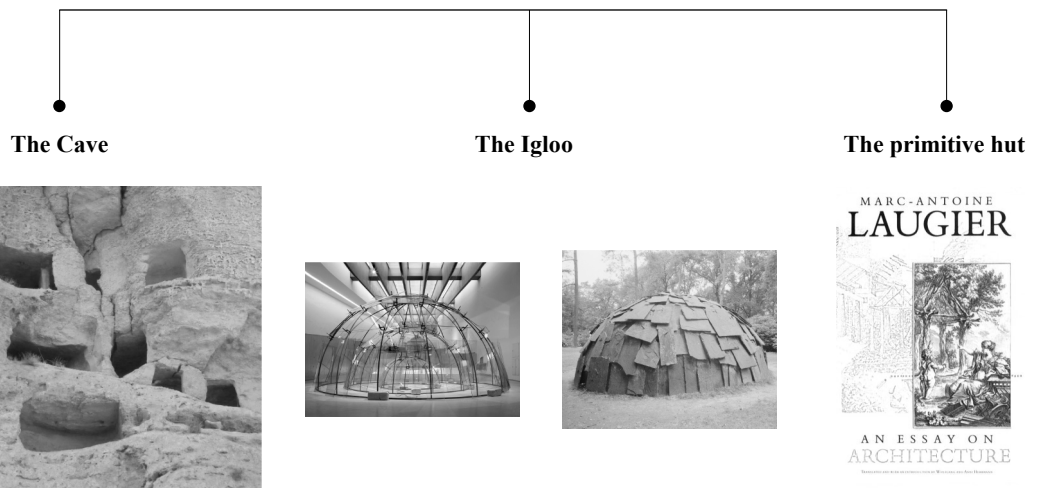
**Figure XIII**  
Map of courtyards in  
the historical city  
center

This morphological logic **extends beyond the surface of the city**. In Madrid, the use of underground spaces shows how the ground becomes a **medium of protection** from aboveground conditions. Whether in cellars, subterranean chambers or hidden tunnels, the city has long used the ground as a threshold space, as explored by Víctor Moreno in the documentary film *Hidden City* (2018).

“Forces at the surface might become such that tents can no longer withstand them, and caves will provide the resilient habitats for humanity to survive.”

- Admiraal & Cornaro, 2018

The cave, as a spatial **archetype of refuge** (See Figure XIV), embodies the **protective function** earth acts as a physical boundary and protective medium for both human and non-human life forms. Therefore, the focus shifts to spatial and infrastructural morphologies that offer resilience through embeddedness within the earth.



**Figure XIV**  
Archetypal Forms of  
Refuge

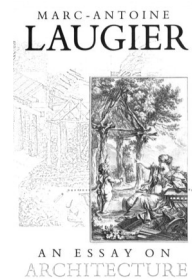


El Risco de las Cuevas cave homes, dug into soft limestone hills Perales de Tajuña, Southeast of Madrid



The installation of Mario Merz- an Italian artist part of the Arte Povera movement of the 1970s and 1980s explore the complex relationship between artworks and their surroundings.

These primitive refugia and their physical boundaries can be seen as a demonstration of a dynamic, nomadic relationship between humans and their natural environment.






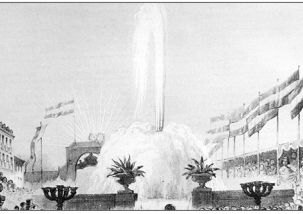

As theorised by Marc-Antoine Laugier in *Essai sur l'Architecture* (1753), represents a primitive form of shelter that traces the origins of architecture back to nature.

Partly underground spaces, as described by Steven Holl and cited by Mary-Ann Ray (1997), call into **question the stability of spatial binaries** such as “inside-out” and “upside-down.” The encounter of these opposites challenge in their opinion human perception by disorienting the assumed hierarchies of ground and sky, enclosure and exposure- leading also to a temporal shift from linear progressive time to cyclical even mythical temporality. It is from within this **spatial-temporal fold** that we may begin to rethink the **role of the underground** as a generative condition of architectural and existential refuge. Much like many examples in Ray’s (1997) work, where water is explored as an elemental presence within the ground, underground structures in Madrid are similarly shaped by or integrated with **water infrastructure**. Madrid has historically been a city built on and shaped by water, which has necessitated a continuous evolution of hydraulic engineering and innovation to manage its sources and distribution (See Figure, left chart)

While this role was fulfilled by the “**viajes de agua**” (means: “Travel of Water”) which is today largely replaced by the modern Canal de Isabel II, the legacy of these early **infrastructures remains legible in the urban fabric**. The viajes de agua are an underground hydraulic systems rooted in Arab engineering—designed to transport water from springs to Madrid’s public fountains, homes, and the palace. The system using gravity and gentle inclines, and the open (mayra) or closed (qanat) channels functioned without pumps. (Admin, 2024).

Fountains, once supplied by these hidden systems, functioned as key mediators between the subterranean flows and the cities’ surface and used to be an important point of social interaction(Figure XV).

Over time, Madrid's historic streams in the city centre were buried beneath paved streets (Portillo, 2024), and the Manzanares River, once a dynamic waterway, was straightened and brought under strict control, making water an almost **intangible element** in the city (Figure XVII) . With the advent of modern infrastructure and the widespread availability of tap water, public fountains lost their social significance. The map underneath illustrates how the growth of population and the ongoing advancements of infrastructure lead to the **disconnection to Madrid’s population from its water heritage**. (Figure XVI)

	<u>Inhabitants</u>	<u>Blue Commons</u>	<u>'Green Commons</u>
		<ul style="list-style-type: none"> <li>„I was built upon water, My walls of fire are, This is my insignia and my crest.“</li> </ul>	"Madrid used to be a vegetable garden area closely linked to the city's waterways..." (Portillo, 2024)
		<ul style="list-style-type: none"> <li>Madrid- Mayrit</li> <li>Arabic "Mayra" (water source) + Latin "it", reflecting the area's abundant springs</li> </ul>	Plenty of vegetable gardens( "huertas"), particularly along the banks of the Manzanares River  1755 Opening Orchard of Migas Calientes, Botanical Garden
<u>Al-Andalus</u> 8th to 15th century	2,000- 5,000	<ul style="list-style-type: none"> <li>„Acequias“ an ancient irrigation canal channeled river water, rainwater and snowmelt</li> </ul>	
<u>718- 1492 Reconquista</u>  Christian conquest of Mayrit 1085	10,000	<ul style="list-style-type: none"> <li>Viajes de agua de Madrid</li> </ul>  	1755 Opening Orchard of Migas Calientes, Botanical Garden  
<u>Industrialization</u>		<ul style="list-style-type: none"> <li>1851   Foundation Canal de Isabel II a centralized water supply system</li> </ul>	
<u>Era Reyes Católicos</u> Catholic Kings Era		<ul style="list-style-type: none"> <li>1858   The first water from the Lozoya River reached Madrid via the canal system</li> </ul>	
<u>Spanish Civil War</u> 1936-39	1.7 Million	 <ul style="list-style-type: none"> <li>covering or rerouting of natural waterways</li> </ul>	
<u>Franco Regime</u> - 1977	4 Million	<ul style="list-style-type: none"> <li>Constant innovation in water management</li> </ul> 	
		<ul style="list-style-type: none"> <li>2008: The inauguration of the Arroyofresno Storm Tank( one of the biggest worldwide)-&gt; channelling most of water underground</li> </ul>	
		<ul style="list-style-type: none"> <li>2020 Installation of 284 new fountains</li> </ul>	
2025	6,8 Million	<ul style="list-style-type: none"> <li>Initiatives to reconnect to the Water Heritage( Portillo, 2024)</li> </ul>	2021, Botanical garden recognized as a UNESCO World Heritage Site

River Manzanares Use

Bath in Manzanares



balnearios populares= popular bathing spots in

Puente de Segovia  
Puente de Toledo



Playa de Madrid

From 1920s  
discouraging river bathing due to hygiene  
and pollution

1990  
Closing 'Playa de Madrid'

2003-2007  
Burial of M-30 Ringroad

2007-2011:  
Madrid Río Urban Project

2016-2017:  
Ecological Renaturalization  
of the Riverbed Manzanares

Sanitary Facilities

Decline of Hammams

Use of Hammams in Spain

In Madrid probably existed only one communal bathing facilities serving hygienic, spiritual and *social* increasing pressure on Muslims to convert or leave Spain

Reliance on public fountains and water carriers



1850-1920  
Main Period of Construction of Corralas  
working-class communal housing  
not equipped with bathrooms  
Use of public bathhouses

From 1900  
Start Expansion of Bathrooms for Urban Elite

1920s-30s:  
Expansion of Tap Water in Private Homes  
Gradual Spread of Bathrooms in Middle-Class Housing

1940s-1960s  
Slow Expansion of Bathrooms in Houses under Franco

1970s-1980s  
Modernization and Mass Access to private Bathrooms

2001  
Opening of Casa de Baños  
in Embajadores and in Tetuán



Only two public bathhouses available

Decline of public sanitary

**Figure XVI:**

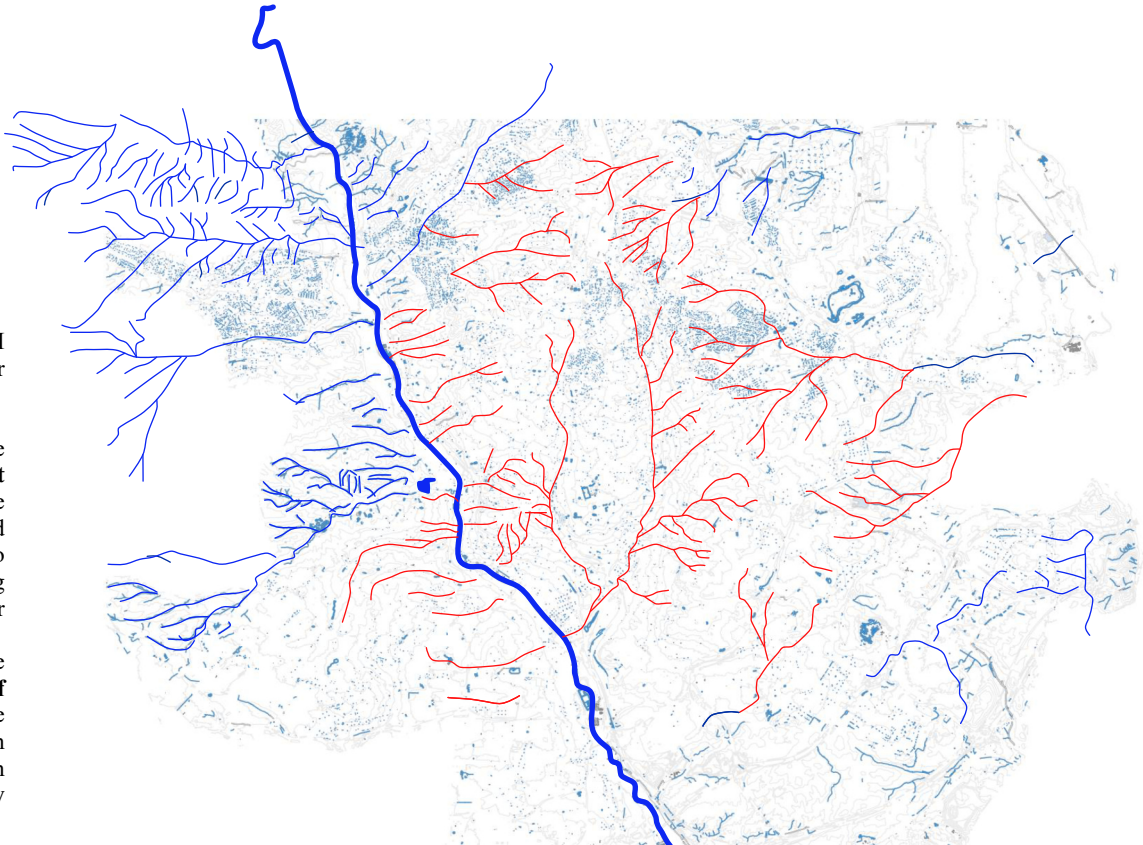
The chart illustrates the impact of population growth and technological progress on the progressive **disconnection to Madrid's water heritage**. It highlights the main interventions that distanced the city's population from the Manzanares River, as well as the decreasing presence of socially and spatially significant water infrastructures such as bathhouses.

The section below shows how **reconnecting to water** is once again gaining political and social urgency in the face of changing environmental conditions. While the city has expanded its network of public drinking fountains, which are now designed as functional facilities rather than the ornate symbols they once were, **access to basic sanitation remains limited**. With only two public wash houses and a lack of public toilets, the sanitation infrastructure remains inadequate. Furthermore, the **lack of accessible public swimming facilities** points to a broader problem: Here, water serves not only as a fundamental resource for survival, but also as a medium of **physical and psychological regeneration**.

**Figure XVII**  
Map created by author

The map illustrate the streams that disappeared or are buried under paved streets while also showing the existing surface water

It also shows the unequal distribution of private pools that are mainly concentrated in the wealthier, northern parts of the city



In response to this disconnection, the essay shifts focus toward water's **connective potential**—exploring historical typologies where water is not only a functional necessity but also a spatial, social, and sensorial experience. Within this framework, the essay considers systems that operate at the intersection of infrastructure and lived experience. One such example is the Arab bathhouse, which can be understood through Angelil and Klingmann's (1999) notion of **hybrid morphologies**—built forms that mediate between extremes and intensities, generating unique spatial conditions. Common in southern Spain and often constructed atop ancient cisterns, these bathhouses link the infrastructural logic of water management with the **embodied, affective experience of water** (Muir, 2023).

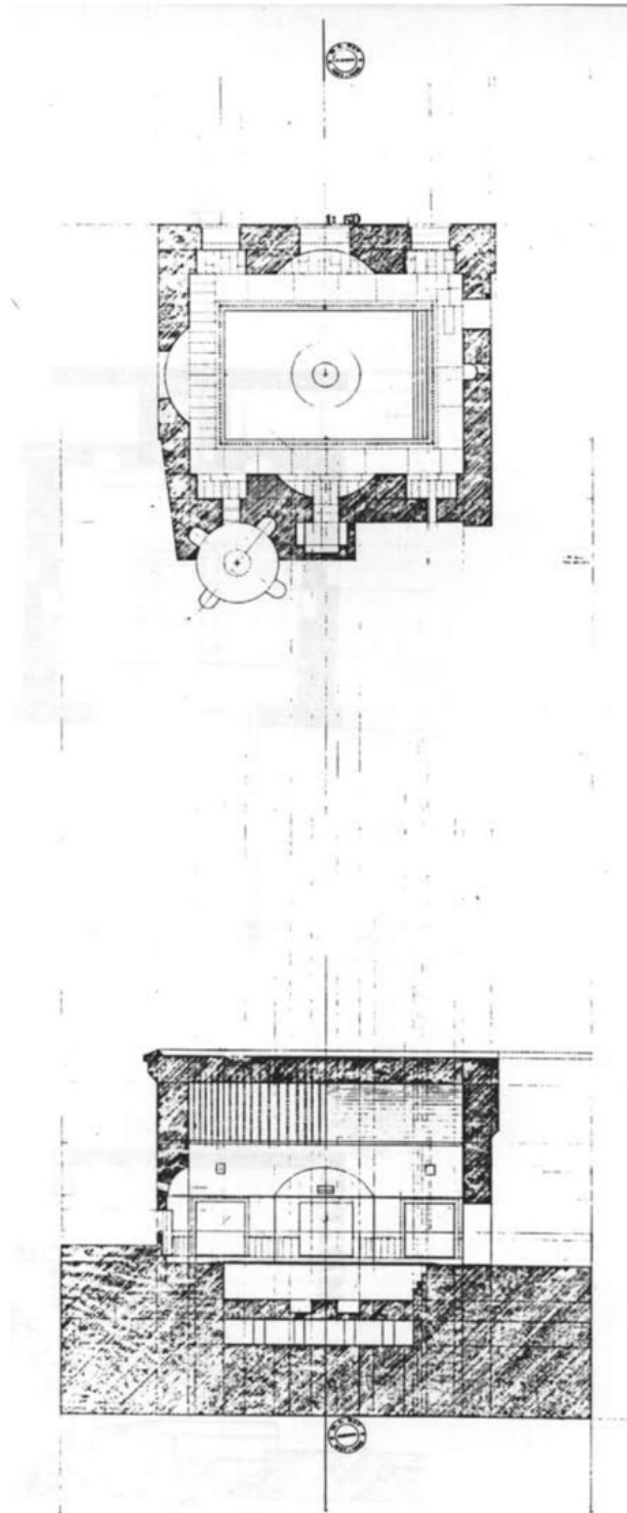
These bathhouses exemplify a spatial and cultural threshold, with the physical experience of the hammam inherently shaped by **bioclimatic principles**. Often the ensemble is partially sunken into the ground, taking advantage of the ground insulation increasing the inertia of the building and its capacity to store energy. As Jean Bouillot (2008) describes, the **spatial itinerary** through the rooms of an Arab bath follows a sequence of temperature variations that are directly related to the humidity of each room, creating specific conditions of thermal comfort(Figure XVIII).

It is the inherent connection between the functional and experiential purpose of the spaces, their **thermal mechanisms** and the **interplay of fire and water** that creates this immersive environment. In the absence of water, the connection to the element of earth becomes central: A ritual purification, called tayammum using earth or sand, shows the direct tactile **purifying qualities of the ground** itself.

Drawing again on the notion of the garden - as a spatial expression of human interaction with natural elements - this time through water as the experiential medium, the contemporary reinterpretation of the Arab bathhouse in Madrid's city centre positions itself as a site of “gardens of water and silence, in the centre of the city, full of pampering and relaxation”.

It is spatial configuration of niches and expansive chambers, often sheltered with archetypal forms such as vaulted ceilings, with the sole focus on the **human sensory experience** at the centre, that shapes this refugium within the city's fabric.

HOLLOW WALLS AND HANGING FLOORS  
BUILDING BODY TEMPERATURE



**Figure XVIII**  
Tepidarium,  
Suburban Baths  
Herculaneum



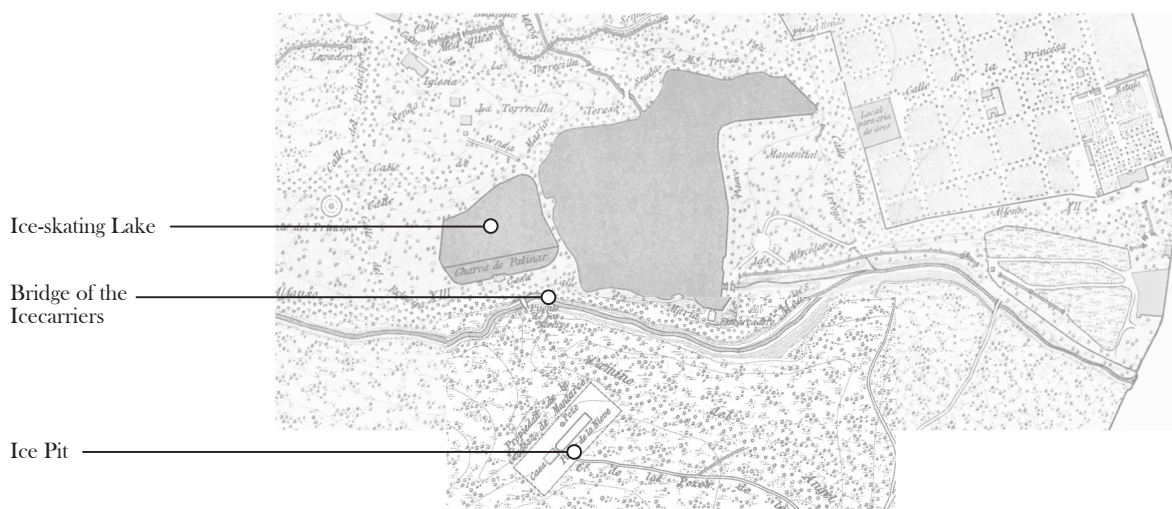
**Figure XIX**

The King and Queen of Spain skating on ice at the Skating Pond in the Casa de Campo, 1911

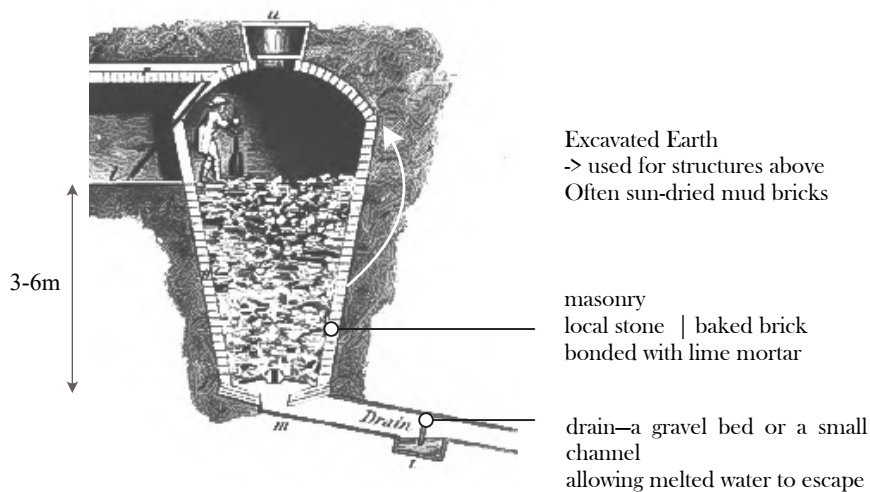
The **ice pits**, one of which is located in the Casa de Campo, illustrate another way of taking maximum of the soil's capacity — storing ice throughout the winter for use in the summer — a practice that once formed the basis of a lucrative business in Madrid.

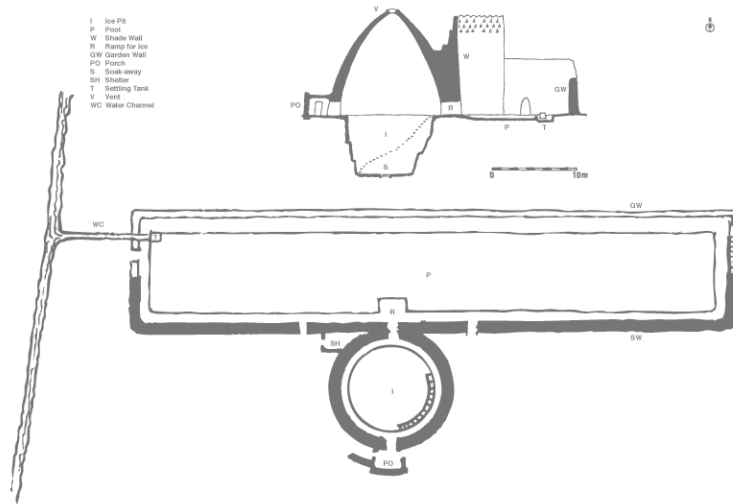
In the course of this research, the focus developed toward exploring the potential of passive cooling systems, specifically referencing the Iranian qanat system and the associated ab anbar and yağcāl structures (See Figure XXII and XXIII)

**Figure XX**  
Map of the Ice Pit System in the Casa de Campo



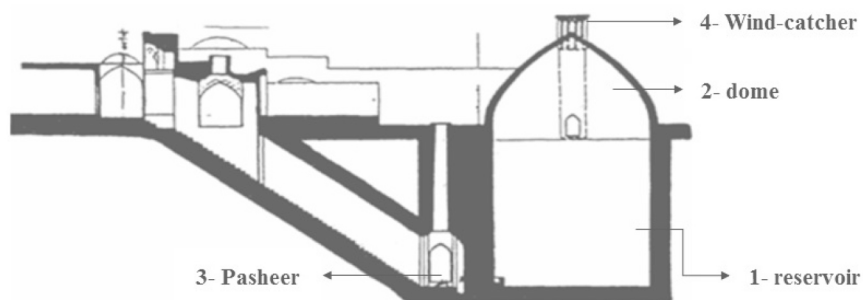
**Figure XXI**  
Case Study of an Ice Pit





**Figure XXII**  
Case Study of the Iranian Ice Pit YAĞÇĀL

In winter, water was channeled into shallow pools next to the yağčāl and froze overnight. The ice was then cut and stored inside the yağčāl.



**Figure XXIII**  
Case Study of an ab anbar, traditional underground water cistern

Characterized by thick walls, domed roofs, and windcatchers (badgirs) — that direct cool air down into the cistern; keeping the water cold, even during hot summers



**Figure XXIV**  
Restoration of a snow  
well in Sierra Espuña,  
Spain, Ecoprojecta



### III. ON TEMPORAL ESCAPE

*“I believe in an architecture that slows down and focuses on human experience instead of diffusing or speeding it up. In my view, architecture has to safeguard memories and protect the authenticity and independence of human experience.”*

Space, Place, Memory, and Imagination:  
The Temporal Dimension of Existential Space by Juhani Pallasmaa

The idea of **transcending physical boundaries** is closely linked to the expansion of mental and sensory perception, which seems to play an increasingly important role in people's psychological and physical well-being. This is evident in the growing use of spaces like sleeping pods and sensory deprivation tanks, the latter invented in 1954 by neurophysiologist John C. Lilly. Designed to **eliminate external stimuli**, the isolation tank was created to facilitate an exploration of phenomenal consciousness and the perception of the self in relation to the surrounding environment. The Artist Till Bökdeker describes the experience of **sensory deprivation** as a “truly protected and self-contained state,” where the relationship between interior and exterior is redefined and the boundaries between the body and the surrounding water become fluid (Bökdeker, 2022).

As described throughout the essay the human condition today is characterised by **intensities** - environmental pressures, climatic extremes and urban densification. In fast-paced cities like Madrid, the body adapts to constant **acceleration and overstimulation** and places of silence becomes rare. Trends such as the growing number of pilgrims on the Camino de Santiago (Caínzos, 2025), the increasing use of meditation apps in Spain (Spain Meditation Management Apps Market Size, 2030) and the growing popularity of yoga practices (Europe Yoga & Meditation Service Market Forecast, 2023) reflect a broader societal response to the pressures of contemporary urban life – and can be seen as **attempts to escape** the intensities of the city.

Considering contemporary environments shaped by fragmentation, acceleration, and hybridity, refugia can be in the context understood as **temporal escapes**—spaces where the human body can retreat from overstimulation of the contemporary city.

Referring back to the earlier definitions of "refugium" and "regeneration," defined in the beginning of the paper, the meaning of them in terms of temporality becomes clear. Both have their roots in biology and **relate to natural processes within ecosystems**, including the component of renewal or regrowth that unfold naturally and **at their own pace**.

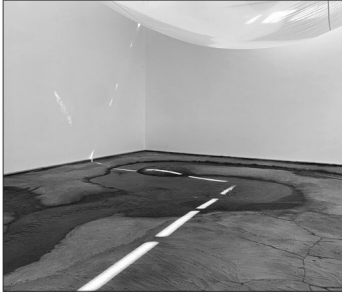
A refugium, within this framework, can be seen as medium that operates as a **sensorium**—a space for physical and perceptual recovery. It doesn't promise escape in a permanent sense but rather serves as a temporal sanctuary that allows the human body to recalibrate its **relation to the world outside** the conditions of the contemporary city.

In his article 'An Environment for the Prosthetic Body', Georges Teyssot examines the entanglement of architecture with the human body(Teyssot, 2005). Here, architecture becomes an expression of the hybrid nature of the **human body to its environment** itself. Following scholars such as Donna Haraway, who writes of cyborg culture as a space of blurred boundaries—mind/body, human/animal, virtual/real to name a few—the refugium becomes a stage for these negotiations. And by doing so, the contemporary Refugium can be also seen as a place of a reconfiguration of the body itself: A **hybrid body**— a body stretched between comfort and discomfort. In this scenario the body itself can be reconfigured to enter in exchange with multiple conditions. It shifts the conversation from controlling or escaping the environment to adapting to it - prioritizing the question of **thermal comfort** as a dynamic negotiation with conditions of protection and exposure. In this way, the refugium connects to what Neimanis might describe as a mode of **being in relation**—not through separation, but through "interpermeation"( Neimanis, 2014, p. 163). The body is not an **isolated subject, but one shaped through its exposure and surrounding thresholds**. The refugium hereby becomes a space where the body inhabits niches and interstices, negotiating its presence across gradients of temperature, light and sound.



**Figure XXV**

Bruder Klaus Chapel,  
Zumthor  
under construction



Danish Pavillon



Non-perennial stream



Stream Botanical Garden



City Stream Freiburg



City Stream Freiburg



Scarpa



Non-perennial stream



Non-perennial stream



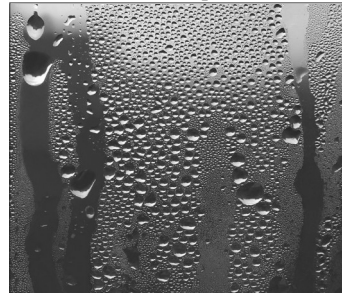
Barefoot park



Frozen Water



Danish Pavillon



Condensed water

**Figure XXVI**  
Catalogue of Precedence,  
showing the affective  
qualities of water

When considering refuges from external conditions, **sacred spaces**, both historical and contemporary, come to mind, where immersive experiences are often shaped through architectures of thresholds and carefully calibrated sensory cues. Hereby, the integration of natural elements can reconnect to an **awareness of rhythm and cyclicity** and retain, unlike the evolving notions of "nature," their fundamental presence and **material constancy**. This is what Pallasmaa calls the **healing capacity of time**—a sacred slowness embedded in space.

Neimanis's emphasis on the human body as a 'body of water' situates it within a broader hydrological continuum - one that connects humans to 'more than human bodies of water' (Neimanis, 2014, p.173). I find in Neimanis' approach multiple points of resonance: Her framing of **water at the intersection of the cultural and the natural** offers a conceptual current through which my own metaphysical considerations of the refugium can be transposed onto a radically material plane. Water, in this reading, is not merely an element of survival but a **medium of relation**.

In dialogue with Enric Miralles' notion that "permanence is contrary to existence" (Speranza, 2016) the contemporary refugium can embrace time not as a static backdrop but as an active material of design. Hereby the idea of the place is **not to create a permanent, ultimate refuge** that would further reinforce the separation between people and their natural environment. The temporality of the refugium in this specific context of the park gets shaped by the different experiences **of the place over time** itself — by its seasons, extreme weather events, yet also by a certain **climatic permanence** compared to other parts of the city. Following the idea of ancient greek philosopher Heraclitus- that the only true constant is change- the refugium in this location, situated at the intersection of cultural and natural elements, holds the **potential to reconnect people with the natural cycles of the environment**. These cycles that are increasingly mediated or hidden in the urban environment, yet whose effects, such as heat waves, flooding or snow fall(see Figure XXVI), are becoming ever more tangible.



**Figure XXVI**  
Casa de Campo in Winter  
2021

In this context the **human impact on the temporality** of the place became increasingly important, following the idea that the place exists only as long as people are willing to care for it. As the place depends on its microclimatic conditions and does not offer ultimate thermal comfort, the users become reliant on **maintaining the surrounding context** which inevitably includes the maintenance of the park and its natural surroundings. In this way, temporality expands to encompass how such spaces can evolve and sustain their meaning over time — a notion that can also be applied to other locations within the park, in Madrid, or in other cities. The shifting relationship between humans and their environment, and the **boundaries that must be continually redefined**, remains a key subject of exploration in these spaces.

Design enters this balancing act by **crafting conditions** where natural cycles and human interaction interweave. In such places, the Refugium operates not only as a spatial sanctuary but as a conceptual framework for imagining new forms of coexistence, supporting regeneration for human and their natural environment.

This essay has traced the refugium not as a fixed or clearly delineated space, but as a fluid and relational boundary between cultural and natural elements — an **interstitial condition shaped by environmental and spatial thresholds**. Drawing from philosophy, literature, art, and technology, it positions the refugium as a dynamic relational field, one that reconfigures how we imagine boundaries. Within this framework the refugium emerges as a practice rather than a form: a **condition of existence where the humans body regenerates and is being regenerated**. Returning to the specific context of Madrid, the city's historical relationship to orchards and waterways offers a latent ecological memory that contemporary refugia can reactivate. The refugium becomes a contemporary form of inhabitation—**temporary, situated, and relational**. It is a threshold space that allows the body to navigate between the intensities of the metropolitan Madrid and the **regenerative potential of natural elements**.



**Figure XXIX**  
Restoration of the  
Retaining Wall of the  
Lake in the Casa de  
Campo

## Outlook

### on the shared human condition

This essay concludes with a final reflection on the concept of the **shared human condition**, which has already been touched upon in some parts earlier. Contemporary patterns of urban escape—particularly visible in the weekend and summer exodus of residents—points to a broader spatial logic of a refugium - an embodied response to the intensities and overloads of metropolitan life. According to Spain's National Statistics Institute, one in three households with children in Spain cannot afford a week's holiday (Faulkner, 2022), effectively trapping them in the place of residence, while others can escape to more temperate retreats. Refuge, then, is not just an environmental construct but an **economic and political one**. The lived experience and possibility of retreat and climate relief is mediated by a complex network of conditions: **financial resources, temporal flexibility and family obligations**. In this light, the human condition remains not a shared experience but a stratified one, structured by differential access to relief, by the ability - or inability - to temporarily escape the urban condition. This asymmetry is made explicit in the image of the historical royal refuge in the park casa de campo - a reminder that the ability to seek relief from emerging urban conditions is not a universal right, but a **question of access and a matter of privilege**.

Framed by the metaphysical reflections embedded in the essay, the notion of refuge invites engagement with its inherent contradictions. It is not offered as a definitive solution, but rather as a site of negotiation—**of human intensities and ecological limits**. Viewed in this light, the refugium is not an escape from the world, but as a mode of producing and sustaining human life within the contemporary city. It can be seen as a **practice of coexistence**, a counterpoint to centralised **management of the commons** and an **opportunity of a renewed collective identity** within the urban fabric.



**Figure XXX**  
Opening the Casa de  
Campo to the Public 1931

## Reflection

on the project ‘temporal constructed refugia’

### Reflection on Research and Methodology

Using a historical map(Figure V) as the foundation for my research provided a consistent point of reference throughout both the research and design phases. It allowed me to continuously return to the **original framework of concepts and relationships**, even as my work evolved and diverged at various stages. Looking back, I realise that despite these shifts, both the research and the evolving design are still deeply rooted in this initial approach. The historical map offered a base on which I could layer further analyses, from **ontological elements** and **historical cartography to satellite imagery** and **case study** findings, working towards a multi-layered picture.

My research methodology is based on **Actor-Network Theory** to better understand the underlying relationships within this emerging picture. While I initially focused more on the role of institutions in the city and on specific populations the refugium would relate to, the focus increasingly shifted towards the **broader human condition** within the urban fabric. The Casa de Campo, a historically exclusive ground transformed into public space, emerged as a **critical site** where the influence of human and non-human actors revealed the complex negotiations of inclusivity of a refugium. Over the course of the research, the notion of **climate justice** emerged as a recurring theme pointing to the broader socio-ecological tensions embedded in the urban condition, although it could only be addressed marginally within the scope of this paper.

The initial approach of mapping the actors evolved over time, gradually shifting during the research towards an **Acting-Reacting Network**. Following this realisation, the focus increasingly turned to the exploration of natural conditions and the beneficial characteristics of natural elements providing potential for physical relieve and psychological support, creating spaces of leisure but also silence and contemplation. Research on this phenomenological level helped to reveal the **affective qualities** and their potential for **physical relieve and psychological support**, creating spaces of **leisure** but also **silence and contemplation**.

Methodologically, a theoretical approach was primarily pursued that focussed in particular on the notion of the garden in the city and as a proxy for the **human condition**. The **symbolic theoretical framework of the Garden of Eden** or an oasis emerged as a natural choice, while **reconnecting these concepts to the specific context of Madrid became my main task**. Organizing the aspects regarding scale, coming from an urban level to a morphological one helped me to systematise the findings.

The continuous expansion of the theoretical framework was helpful in develop my own position within the broader context of the human condition in the city. Methods such as **mapping, reading contemporary newspaper articles, and studying historical sources** provided the foundation for the project and the appropriate embedding in its historical and contemporary context. Through this process, I understood the role of water as a fundamental, life-giving element that constitutes, and shapes **interconnected systems**. A key part of the research involved understanding the paradox of water's presence within the city alongside the increasing aridification of the country and the occurrence of extreme weather events. This inquiry extended from the **physical realities** of water to its **metaphysical connotations**, ultimately transforming into the notion of **water as a form of refuge**.

## Reflection on Transition from Research to Design

The research was strongly influenced from the outset by my initial fascination with the Casa de Campo — a place that, despite its immediate proximity to the city of Madrid, **feels distinctly apart** from it. This made the transition to the design site quite straightforward. Characterized by its rich vegetation and open water sources, the park offers a far more tolerable microclimate compared to the city centre, already serving as a **refuge from heightened environmental stress**. The presence of unaltered streams within the park, in contrast to the increasing canalisation of streams closer to Madrid's historical centre, became a key entry point for **questioning long-established categories** such as the separation between architecture, landscape, and (water) infrastructure and opened the possibility of rethinking the concept of the **Refugium as a mediator between these realms**.

The selection of the design site evolved through **several variations** within the casa de Campo. Ultimately with the decision of the chosen site I am emphasizing the **historical significance of the former royal retreat** and make use of its direct **counter position to the palace** — both symbolically, through the juxtaposition of culture and nature, and practically, by **integrating with existing visitor flows**. As the area around the lake is one of the most frequented parts of the park, the design naturally connects to existing paths and **established walking paths**.

Initially positioned along the main axis, later the historical royal refugium was chosen for its protected location, defined boundaries, as well as the opportunity to **repurpose vacant or only provisionally used buildings**. Hereby as part of the Masterplan the design interventions introduce **several thresholds** for visitors entering the Casa de Campo. Working with the existing separating wall and controlled access point, the design offers points of departure for a dialogue between the **interior and exterior conditions** across the boundary.

## Reflection on regeneration

The research question explicitly **aims at the heterogeneity of regeneration**, therefore over the last few months, the programme has undergone a steady evolution, moving through different phases — from a focus on **ultimate leisure** to one of **ultimate contemplation**. Hereby especially thinking of **different user groups** of the mainly public building became crucial here, as regeneration for one user group does not have the same or even a counterproductive effect on another one.

Along with my evolving understanding of the concept of regeneration and exploration of the **concept of the garden as a human condition**, the factor of regeneration of the park's natural environment, and thus the aspect of an **educational programme**, became increasingly important.

While the programme for humans changes significantly over the course of the day and the year, the non-human processes have been assigned specific areas that remain unaffected by humans. My aim here was to **transfer the findings of the urban case studies** in Madrid, such as the Madrid Metropolitan Forest or the madrid Rio Renaturaliation project, to my specific location. The basic idea is to work with **evolving boundaries**, resulting in an **experimental**, and in parts speculative, **project** that enables connection and gradual ecological change by assigning **varying degrees of human influence in the system**. This connects back to my evolving understanding of the human in the ecosystem, no longer seen as an **actor outside or above nature**, but as part of its evolving boundaries, leading to a **new understanding of changes** in the natural environment.

From these considerations and case studies, I have drawn aspects that lead to a **diverse and multifaceted programme**- one that I am naming a **centre for regenerative practices**. The project deliberately resists being placed within a fixed typology or category at all and intends to explore **new forms of collective use**, without placing too many predefined expectations on the space. Instead, it remains open — allowing for **natural adaptation and change** in response to evolving conditions and shifting environmental conditions. The aim of the project is to create an **alternative mode of spatial production**, characterised by improvisation and a counterpoint to centralised management of the commons. I am hereby connecting to the explorations of a new type of building, in Germany called Bautyp E, E for einfach(=simple) but also experimental, a place open for use, determined by the temporality of the environment.

### Reflection on temporality

Together with my understanding of climate adaptation also my understanding of temporality within architectural design in this context has undergone various transformations. From the outset, I was aware that I did **not want to create a permanent, ultimate refugium** that would further reinforce the separation between nature and culture. The place is not meant for permanent settlement: neither for living nor for working, but rather a temporary space for retreat.

In order to reconnect human to their natural environment, I want the design to reflect the **temporality of the park** itself — shaped by the seasons, by extreme weather events, yet also by a certain climatic permanence compared to other parts of the city. Following the idea that the only true constant is change, I aim with the design to **reconnect people to these natural cycles** — cycles that are increasingly mediated or hidden in the urban environment, yet whose effects, such as heat waves or flooding, are becoming ever more tangible.

Throughout the research also the **impact of human impact on the temporality of the place** became increasingly important, following the idea that parts of the place exist only as long as people are willing to care for it. As the place depends on its **microclimatic conditions** and does not offer ultimate thermal comfort, the users become reliant on **maintaining the surrounding context** which inevitably includes the maintenance of the park and its natural surroundings. In this way, temporality expands to encompass how such spaces can evolve and sustain their meaning over time.

### **Reflection on the transferability**

The research grounds the spatial and conceptual considerations of the Refugium in order to explore the **broader human condition in the metropolitan city**. The need for spaces that offer sensory refuge and climatic relieve is becoming increasingly urgent worldwide due to **heightened environmental intensities**. However, this project is deeply rooted in the specific context of the Casa de Campo park — a site that, while clearly removed from the urban core, still maintains a strong urban character. The **project's unique position**, which connects it to **symbolic and historical characteristics**, cannot easily be replicated in other cities and requires an in-depth understanding of the context. Similarly, the project's connection to the **site's existing (water) heritage** and to specific forms of Spanish — or even Madrid-specific — craftsmanship would inevitably take on different forms elsewhere. Rather than serving as a universally applicable model, the project should be understood as a **test bed for exploring alternative approaches** and its insights may offer a valuable blueprint for other locations, but would **require careful adaptation to the particular conditions and cultural contexts** of each site.

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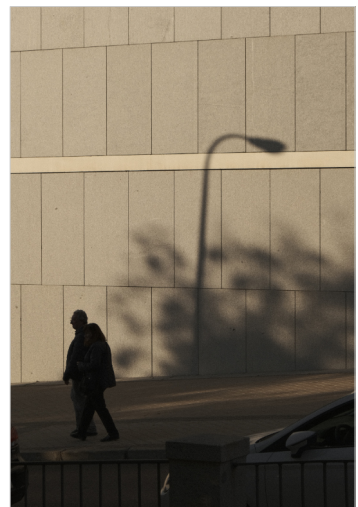
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**Figure XXXI**  
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Temporal Constructed Refugia

Graduation Project

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Architectural Design Crossovers Graduation Studio 2024/25

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