

## forces of care

design as a system for collective acts of social  
and physical care, maintenance, and repair in  
neo-liberal cities



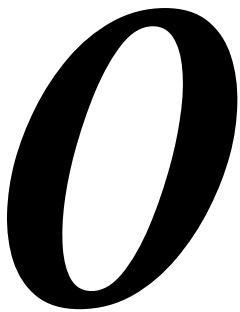
This paper is a supportive component of my graduation design project. Together, the two propose an alternative system of governance and economic independence in the peripheral residential areas of a neoliberal city. The paper begins by outlining the existing theoretical discourse surrounding the concepts of critical care, maintenance, and repair. I consider these concepts essential prerequisites for initiating and sustaining a cooperative system in which various stakeholders become active participants in the performative process of becoming and evolving.

The aim is to propose a set of guidelines that could be followed in designing such an evolving system. In order to do that, five precedents, each related to different themes of development, and to different generative forces, were analysed. Each of them contributes to the project on distinct levels and with varying intensities.

The system proposal, that represents my Master's graduation project, is speculatively applied and tested in Madrid, Spain which becomes an urban laboratory in this context



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*dictionary*



To support the understanding of this paper and its complementary graduation project, the key terminology used throughout the document is introduced in this section. The definitions provided are adapted to the specific context of this thesis.

***mutual care***

involves reciprocal respect and equity;

***critical care***

advocates for architecture to embrace mutual care, integrating human and environmental needs to create ethical, sustainable urban spaces and resource practices;

***repair***

act of kindness that generates a change in social and physical structures (from one state to another) as a contemplated reaction to a given opportunity;

***maintenance***

act of kindness that implies daily attention towards social and physical structures in order to sustain their resilience;

***discipline***

the practice of respecting certain instructions or guidance, accompanied by critical reflection and evaluation of them;

the notion of encouraging actors to take responsibility for their own actions, supporting them in learning new skills, becoming their own leaders, and fostering a sense of communal belonging and ownership: a community to be proud of;

***planning***

the process of contemplation, of taking in consideration different development scenarios and their potential consequences: possibilities, opportunities, weaknesses and threats that decisions may introduce to a system;

brings together different protagonists;

it identifies the steps of development and critically reflects upon them

***guidelines***

handbook or compendium of principles and advice, initially having a preliminary form, but intended to evolve with the knowledge acquired throughout the process;

its purpose is supporting the protagonists of the process, assisting them throughout the various stages of the project, with the intensity of support adapting to the specific needs of each phase

***function***

defines key characteristics and boundaries of a physical space in relation to the opportunities that the space offers to the other protagonists (or participants), such as orientation, openness, publicness, fulfilment of needs, daily rhythms, spatial dimensions, and required services;

it ensures the effective functioning of the program and it is a structural component in the project's development process;



### ***program***

explains dependencies and relationships between different functions of a space, supporting a potential activation of a location through their means;

it proposes a structure for the daily rhythms of a certain community of users around the intervention site;

it introduces a change/ transformation in the previously stable state of a physical environment;

### ***system***

the assembly or layering of relationships between the different constructive parts of the project;

it refers to how planning and construction processes, program, functions, guidelines, timelines, operations, maintenance, repair and social activities are integrated and work together as a coherent whole

### ***self-sustaining***

integration of the project in a circular economic model;

a system capable of sustaining its own existence, maintenance, and evolution through ethical processes of production and exchange;

### ***rethink***

reconsidering the concepts of ownership, use, and maintenance of shared entities;

involving the creation of a collective small-scale governance model for land, facilities, and activities - one that fosters collective responsibility and challenges the producer-consumer dichotomy;

### ***reuse***

the act of repeatedly giving life to a physical or non-physical entity in a purposeful and non-wasteful way;

the cycle persists until there is a rupture or until a moment of transformation occurs, changing the state of the entity to one that obstructs its continued use in the original manner;

### ***repurpose***

the act of offering new productive lives to physical or non-physical entities once they have reached the end of one of their lifecycles;

it typically occurs when the possibilities for direct reuse are exhausted, prompting a transformation into a new form of function;

### ***remanufacture***

the act of integrating intact components that might have been otherwise discarded into the creation of new products serving the same function;

### ***refurbish***

the act of renovating an object by updating some of its constitutive parts, enabling it to perform its original purpose as it did in its initial state;

# ***1***

***introduction***



*matre* :

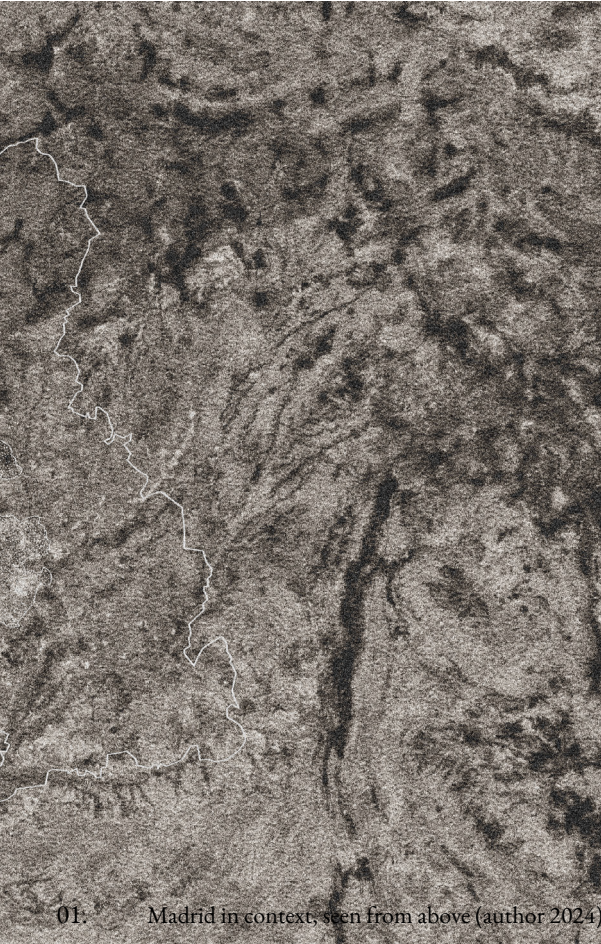
- + translates to English as *mother*;
- + obsolete alternative form of the Italian *madre*;
- + from Latin *māter*, *mātrēm*.<sup>1</sup>

*critical care* according to Angelika Fitz, Elke Krasny, Brian Dorsey, and Timothy Savage in *Critical Care: Architecture and Urbanism for a Broken Planet*<sup>2</sup> :

- + advocates for architecture to embrace mutual care, integrating human and environmental needs to create ethical, sustainable urban spaces and resource practices.

*1-1 context*

- 1 ("Matre" 2022)
- 2 (Fitz et al. 2019)
- 3 (de Covarrubias Horozco and Sánchez 1611, 532)
- 4 (Fitz et al. 2019)



01. Madrid in context, seen from above (author 2024)

Several legends are associated with the origin of Madrid's name, one of which suggests it is rooted in the Latin *matre* : theory that portrays Madrid as a nurturing figure, an adoptive entity for people from diverse nations and cultures<sup>3</sup>. This resonates with my idea that urban spaces are, above all, fertile grounds for collectivity and networks of mutual care. Therefore, in the view of this paper, Madrid becomes the **caring system** of its human and non-human inhabitants.

This research aims to use the concept of **critical care**<sup>4</sup> **as an activator** in the relationship between human and non-human actors, exploring innovative ways in which they can support each other. This can then inform the generation of creative forms of collective engagement in the communal spaces of a city, eventually strengthening **citizen responsibility** and **integration between different social groups**. Maybe if our spatial systems could accommodate different forms of interaction between social and physical through collective engagement there would be more **equitable communal spaces and activities** in the city.

*groundwork* as defined in the Cambridge Dictionary<sup>5</sup>:

- + work that is done as a preparation for work that will be done later.

*fieldwork* as defined in the Cambridge Dictionary<sup>6</sup>:

- + study that consists of practical activities that are done away from your school, college, or place of work;
- + the testing of scientific theories in real situations.

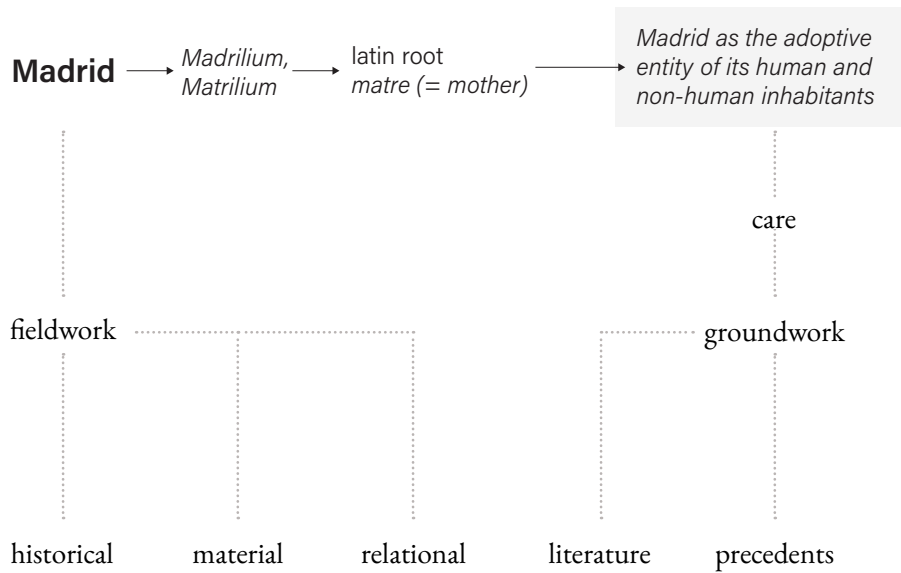
In this context the concept of critical care becomes central to the discussion, dividing the research into two main components: fieldwork and groundwork.

Initially, the thematic groundwork was established by forming a theoretical framework based on existing literary discourse on the topics of critical care, maintenance, and repair. Then the groundwork was strengthened by expanding upon this framework and connecting it to practical precedents which present intriguing examples of systems of critical care and collectivity which inform my proposal further.

Secondly, fieldwork is the part of the research that delves into the particularities of the testing ground of my graduation project, Madrid and, more specifically, (the district of) Puente de Vallecas. It comprises an inquiry on the forces that shaped the historical evolution of the city, giving context to all the next steps of the process. On-site material investigations followed, and, finally, a study of the actors that could be involved in the proposed intervention as well as the relationships they could have to the suggested system are explored.

5 (Cambridge University Press, 2025)

6 (Cambridge University Press, 2025)



# 2

*groundwork*



*What if notions of critical care could be addressed in the*

*How can these accommodate performative acts of main*

*formation of equitable communal spatial infrastructures?*

*tenance as a form of collective responsibility?*

*care* as defined in the Cambridge Dictionary<sup>7</sup>:

- + the process of protecting someone or something and providing what that person or thing needs;
- + serious attention, especially to the details of a situation or thing;
- + a feeling of worry or anxiety.

*\* "Power structures operate by fabricating (...) dichotomous distinctions: by stratifying, filing, sequencing, making categories and concordances, endlessly organizing."*<sup>8</sup>

*\*\*neo-liberalism* as described by Gilles Pinson and Christelle Morel<sup>9</sup>:

- + prioritises the financialization of services, especially socially oriented ones, making cities primarily capitalistic entities
- + prioritises the privatisation of public services
- + commodifies public space, impacting democracy

*"...(a)nother, more interesting usage sees 'neoliberalism' as the name of a broad, global cultural formation characteristic of a new era of 'millennial capitalism' – a kind of global meta-culture, characteristic of our newly deregulated, insecure and speculative times (Comaroff and Comaroff, 2000)."*<sup>10</sup>

- 7 (Cambridge University Press, 2025)
- 8 (Stoner 2012, 10)
- 9 (Pinson and Morel Journal 2016)
- 10 (Storper 2016)
- 11 (Fitz et al. 2019)
- 12 (Mattern 2018)

## 2-1 notions of care



02. Hiramama carefully spr



aying his Bonsai trees in Perfect Days, directed by Wim Wenders (2023).

This paper aims to extend on the general notion of care as defined in the Cambridge English Dictionary, as well as on our understanding of (critical) care in the architecture field and in our everyday lives. As suggested in *Critical Care: Architecture and Urbanism for a Broken Planet and Maintenance and Care*<sup>11</sup>, **critical care** bridges all aspects of human and non-human life, being integrated with forms of repair and maintenance of both social and material entities. However, it often implies a **power-driven relationship\*** between the actors of care involved, creating a distinction between the care-giver, subject of care (usually privileged and non-vulnerable) and the care-receiver, object of care (often vulnerable and disadvantaged). Furthermore, care in architecture is traditionally associated with healing and rehabilitation, relating both to human healthcare and to the maintenance and repair of material culture, social structures, urban fabric, and infrastructure<sup>12</sup>. In our current neo-liberal cities\*\*, these are not embedded in the communal lifestyle of the citizens, rather they are treated as **services**: financial, market-oriented systems that sustain the capitalistic operation of the city, **increasing inequalities** between different social groups and **trivialising human rights** and needs. The serviceability of maintenance and critical care processes in this capitalistic ecosystem relies on keeping a distinction between social classes, making the (less-desirable) caring actions be fulfilled by the specific groups of people who are often themselves part of more vulnerable demographics (such as lower-income groups). In other words, this system prefers to impede the socially fragile groups to break away from their social status and destabilise the current power structure, instead of supporting everybody's development in an equitable manner.

"Minor architectures are (...) opportunistic events in response to latent but powerful desires to undo structures of power; and as such, minor architectures are precisely (if perversely) concerned with the privilege and circumstances of major architecture, the architecture of State and economic authority."<sup>13</sup>

\*"If, as Michel de Certeau suggests, «space is practiced place,» these minor operations might be construed as practiced space"<sup>14</sup>

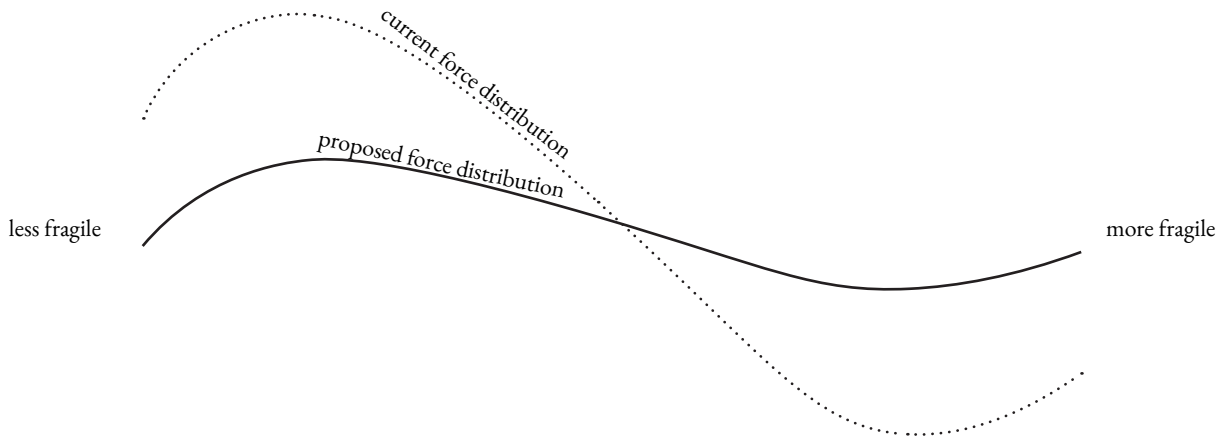
"space can be the result of action rather than the cause of behavior."<sup>15</sup>

- 13 (Stoner 2012, 7)
- 14 (Stoner 2012, 16)
- 15 (Stoner 2012, 16)
- 16 (Graham and Thrift 2007)
- 17 (Mattern 2018)
- 18 (Stoner 2012, 16)
- 19 (Stoner 2012, 5)
- 20 (Stoner 2012, 16)
- 21 (Stoner 2012, 16)

In the earlier discussed market-oriented city, acts of repairing physical structures go hand in hand with the refinement of social, human-related systems and they generally are dividing forces instead of binding agents in the continuum of urban life. But the concept of repair goes beyond Graham's and Thrift's<sup>16</sup> perspective of fixing an object of care that is, in some way, broken. It is **celebrating the labour** embedded in its operation<sup>17</sup>, it is striving to **democratise production and maintenance** efforts by deconstructing power entities. **Repair is a collective act** that "delight[s] in imperfect, incomplete outcomes."<sup>18</sup> and it invites action and collaboration "from below"<sup>19</sup> in order to operate on space and architecture.

And what if these caring practices became **part of the daily rituals** of the collective? The reciprocity that could emerge from the care and maintenance of communal urban spaces might be essential for fostering collective responsibility and integrating diverse social groups into a more balanced social structure.

Those practices might be able to become inherent to the urban mechanism of life. First of all, **shifting the idea of ownership** from a private or public group to a cooperative one invites the participants to take action and responsibility in order to ensure the well-functioning of that system. It makes them the governors, caretakers, maintainers, and users of their preferred social and economic infrastructures. It is both a political practice that produces **minor architectures\*** as well as a social and material one. It makes people gather in a productive environment in which they are encouraged to acquire new skills, learn alternative ways of living, working, or acting upon their physical surroundings. **Public space is decommodified** in this way, through "minor operations"<sup>20</sup> which create "practiced space"<sup>21</sup>.



(Critical) care, in the context of this paper, is a form of **kindness, thoughtfulness and effort** put into actions and processes which are directed towards any other living or non-living actors, treating each of them in an **equitable manner** by taking time to **listen, understand and adapt**.

This definition acknowledges the current power structures and previously discussed binaries while contemplating their deconstruction. The more powerful actors are the ones afforded the force of change, but not exclusively. By introducing **residents and civic organisations into the governing structure** of the collective commodities of a certain part of a city, their **formerly stable balance is disrupted**. Minor acts intervene into the segmented system of our economically-competitive cities in an attempt to smoothen them<sup>22</sup>, **open up affordances for the more fragile** (less powerful) human or non-human actors that participate in these systems. Consequently, they can introduce forces of change, shaping our shared world in a collaborative way. The purpose is to **flatten the previously skewed power structure** generating a new **need for adaptation from the top side of the current power pyramid** instead of the other way around. This involves also taking some steps back from the anthropocentric position that we find ourselves in currently, giving space to other protagonists to take over the stage and see where that leads us.

Expanding upon this notion of care, I would like to define for this project the concept of a **careful urban system** as a kind, thoughtful, patient system that **accounts for multiple details and uncertainties** starting with the initial planning stage and lasting throughout its entire lifespan; it involves agency and a certain degree of consciousness for all the decisions taken, remaining open to adapt according to new realities and knowledge. This system is **not concerned with finished products** but rather with **ever-evolving entities** which constantly change and, therefore, **reconstruct their relationships with other systems**. Hence, there is no last phase, rather a transformative one where a certain lifestyle slowly ends, making space for the next.

Therefore, in the context of this project, critical care becomes a **guiding concept attached to the relationships between its different protagonists**, whether living or non-living. Rather than being related to subject or object, care as a relationship **breaks down current hierarchies in our neo-liberal society**, challenging our norms and regulations and setting the ground for new ways of being together, of interacting with our surrounding matter, of collective encounters and forces that can shape our communal infrastructures in a city and our feelings of domesticity, home and belonging.

*What if notions of critical care could be addressed in the*

*How can these accommodate performative acts of main*

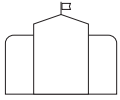
*formation of equitable communal spatial infrastructures?*

*tenance as a form of collective responsibility?*

The following sub-section of this paper illustrates a series of good practices that inform the creation of the system proposed in my project. Five case studies are investigated, each tackling different relevant aspects to the further development of my proposed system. These cases also involve different agencies at work in their initiation, design, construction, operation, and evolution. Each of these cases has a specific influence on the system proposal. This will be mapped in the next pages through visual icons and explanatory texts.

The analysis of these precedents is structured as follows: each case includes a brief description of the project and its relevance to this thesis, visual representations of the involved agencies and relevant addressed themes, as well as the key characteristics to be reinterpreted within the framework of my system proposal.

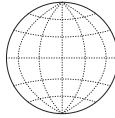
### ***2-3 precedents***



institutional agency



social agency



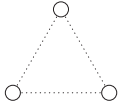
environmental agency



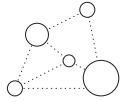
material agency



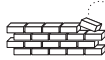
architectural agency



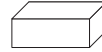
organisation



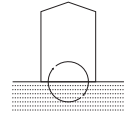
program/function



self-construction



materiality

structure-environment  
relationship

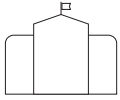


03. (raumlaborberlin 2018)

### *2-3-a Haus der Statistik*

Berlin, Germany

(Koop5 and ZUsammenKUNFT 2015)  
(Ferguson and Make\_Shift 2019, 116–19)  
(Fitz et al. 2019, 251-254)



institutional agency



social agency



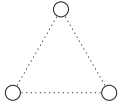
environmental agency



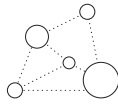
material agency



architectural agency



organisation



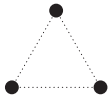
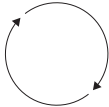
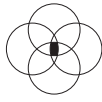
program/function



self-construction



materiality

structure-environment  
relationshipcooperative  
governancecommitment over  
capital exchangeinfrastructure  
interplayneighbourhood  
activationcollective  
ownershipbending  
normscollective  
responsibility

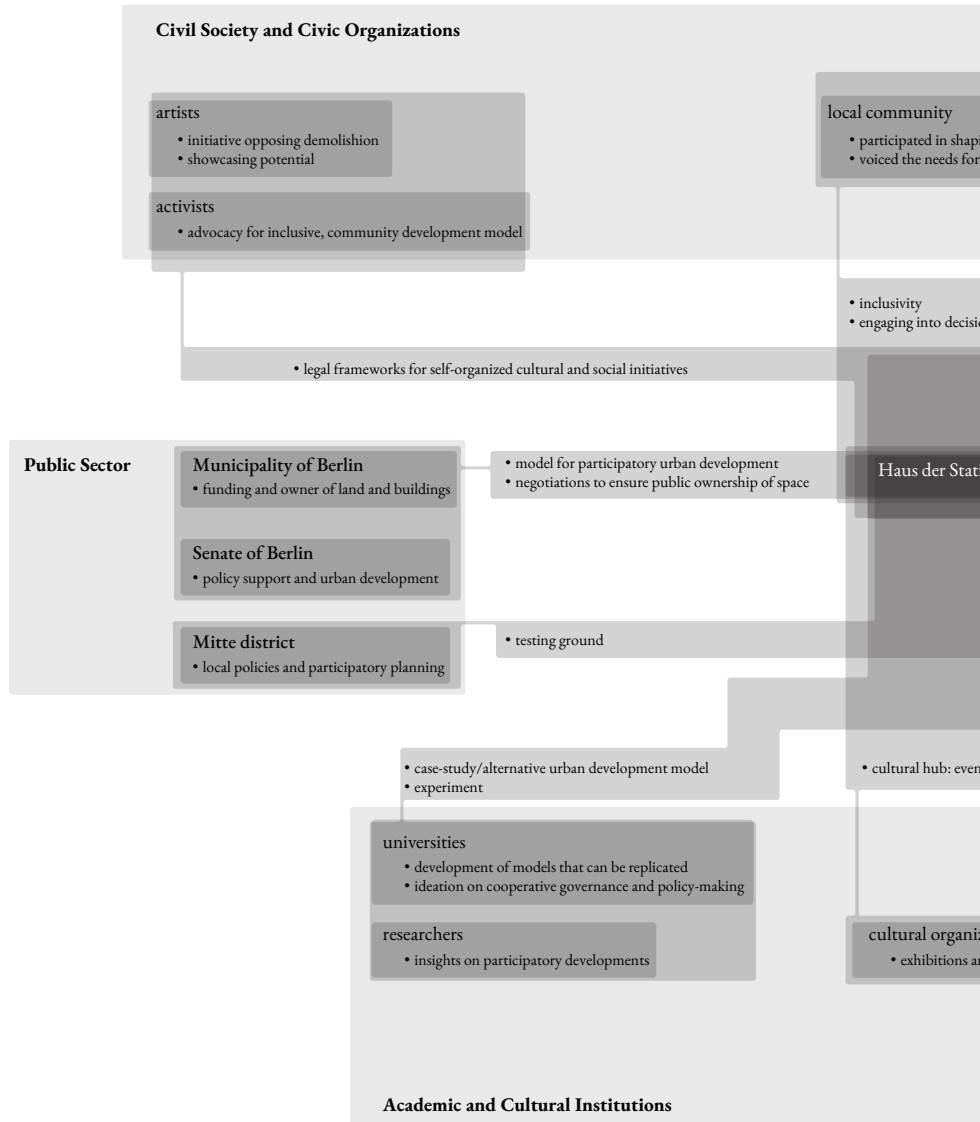
Haus der Statistik is a fascinating example of a bottom-up project which started at the initiative of the civil society. The former House of Statistics of the East German authorities was planned to be demolished when artists, activists, residents of the surrounding areas, together with social and cultural organisations took responsibility in their own hands and acted upon this decision with the means they had at hand. People gathered; they organised, they protested, but, above all, they proposed alternatives. These people instigated change. People wanted to preserve something that they found valuable and integrate it in their daily use and life. And they succeeded.

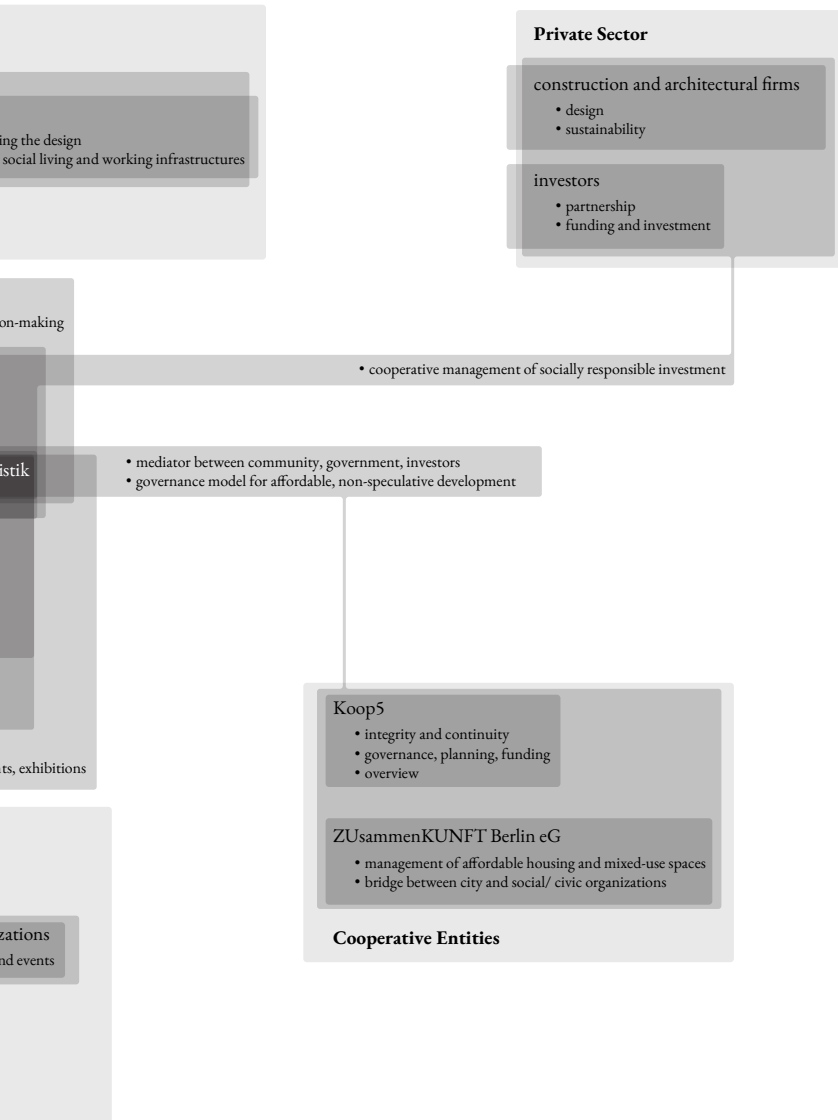
I believe that the success of this project lays in the organisational structure they created which introduces some limits and norms which need to be followed, but those in fact provide freedom and structure to the further steps of the process. They had formed two cooperative entities which afforded them a legal base for collaborating with potential partners and governing the project together with the public sector. And this is also what helps in making Haus der Statistik an equitable system. It allocates residential and communal facilities to the community members based on their financial possibilities. In this way the different spaces provided remain accessible and affordable for all the different social groups of the community and throughout different moments of time or economy. Nonetheless, this system also encourages the actors to not only be consumers of its infrastructures, but active agents that use, maintain, alter, transform, repair, rethink, or even extend the initial framework of the system. It builds an exchange of commodities for participation and responsibility.





04. Pioneering diagram and renegotiation of space in Haus der Statistik (Maria Garcia n.d.)







05. Entrance of Sargfabrik Wien (Prytula n.d.)

## 2-3-b Sargfabrik Wien

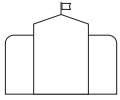
Vienna, Austria

(Tönkö and Szemző 2019)

("Sargfabrik Wien" n.d.)

(Bugarc 2015)

("Miss Sargfabrik" n.d.)



institutional agency



social agency



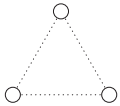
environmental agency



material agency



architectural agency



organisation



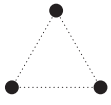
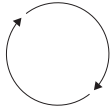
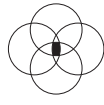
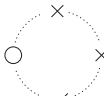
program/function



self-construction

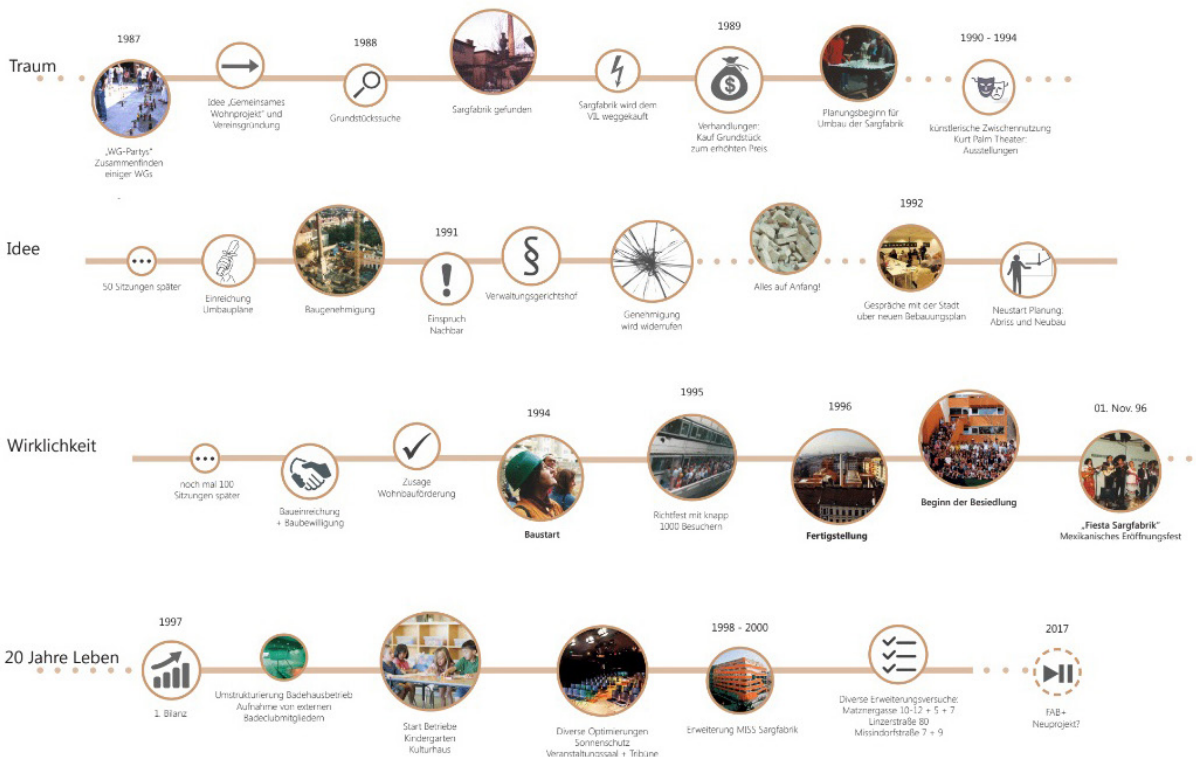


materiality

structure-environment  
relationshipcooperative  
governancecommitment  
for facilitiesinfrastructure  
interplayneighbourhood  
activationcollective  
ownershipbending  
normscollective  
responsibilityeconomy of  
solidaritytest and proof  
design strategycompensation  
strategy

Another project that offers an inspiring example of organisation, social agency and process design is Sargfabrik Wien which promotes the idea of collective ownership by also compensating for the lack of private ownership. It is also a bottom-up project, starting with the civic initiative of a group of locals to create a residential and cultural facility. As opposed to Haus der Statistik, the initiative did not start as a desire to preserve the building or complex that houses the project now. The building of Sargfabrik has been found later on in the progress of the project and bought by an already formed association that had already developed a concept for a possible project and wanted to actualise it. Sargfabrik used to be one of the biggest coffin manufacturers in the Austro-Hungarian Empire but the building was abandoned since the 1970's. After that, design and planning has been going on until 2000 when an additional building, Miss Sargfabrik

## THE MAKING OF -FABRIK



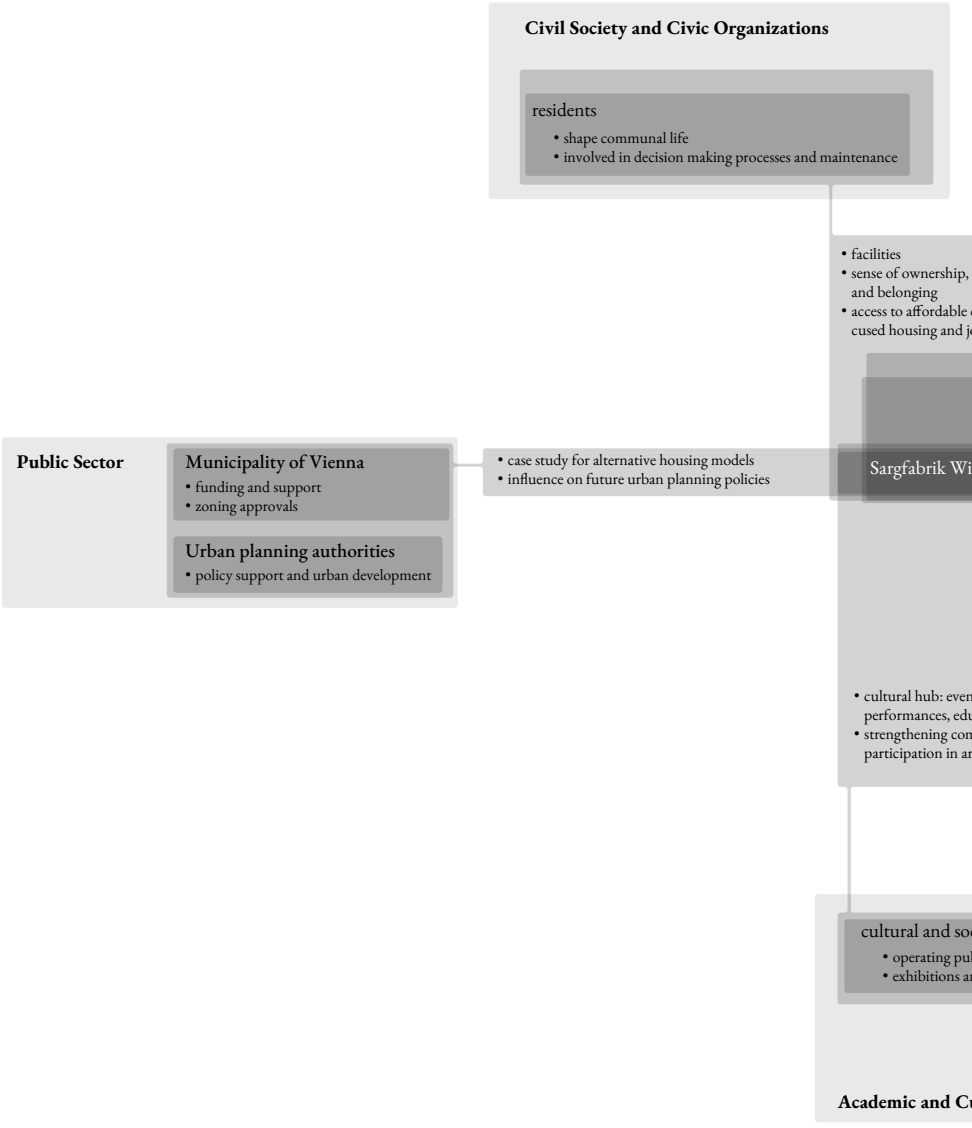
06. Process timeline of the making of Sargfabrik Wien (Tönkö and Szemző 2019) ©BKK-3

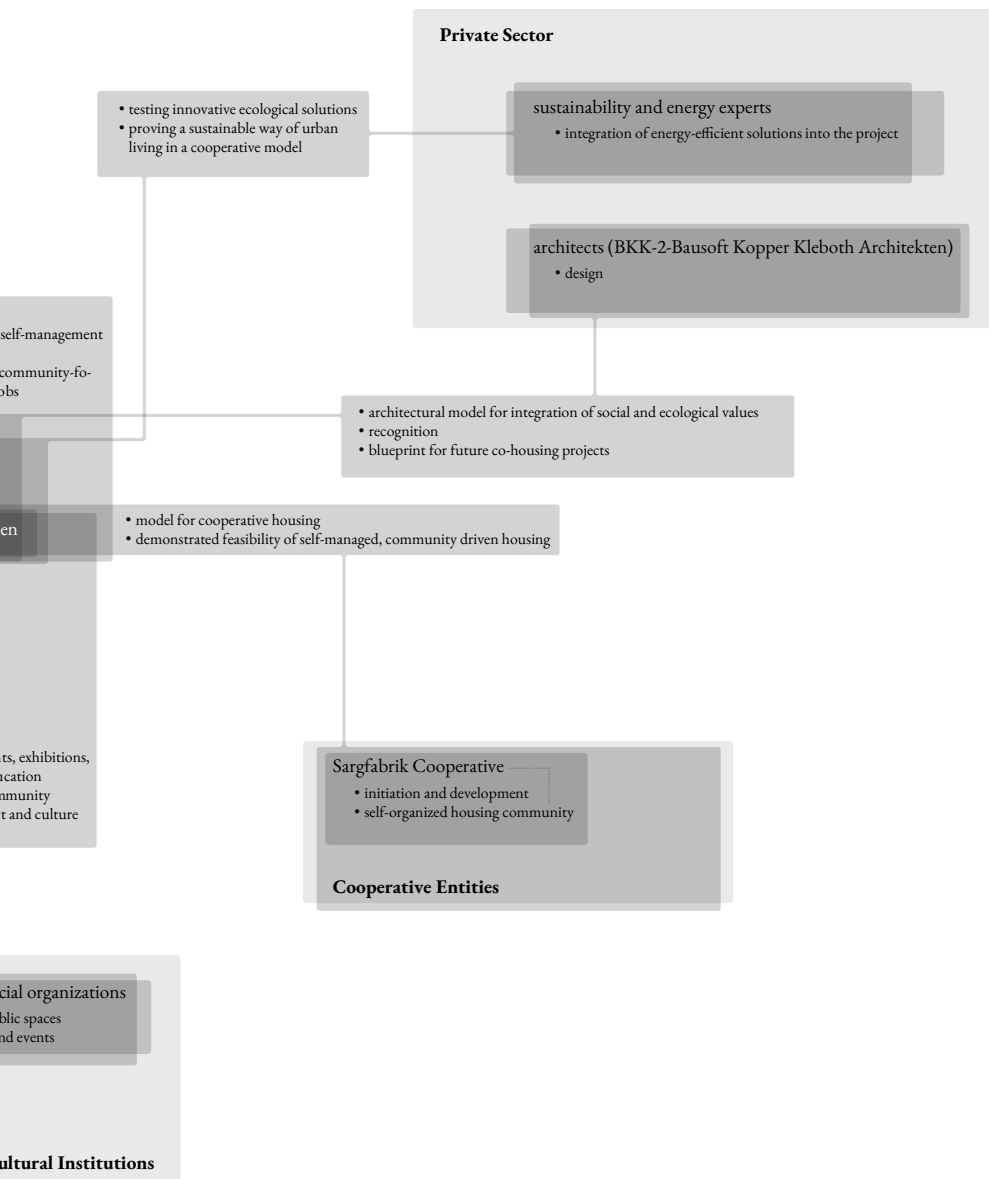


has been completed as a complementary structure to the project. The project repairs the desolated urban fabric and neighbourhood dynamics in the 14th district of Vienna as well as the relationship between present and the history of the site of the factory.

What I find interesting and worth taking into account for the development of my proposal is the strategy that they employed in the construction and renovation of this complex. They have been testing most of their design decisions with 1:1 installations and then they would assess their performance, adapt if necessary to the new insights and only then include that in their final design and construction process.

Similar to Haus der Statistik, the system of Sargfabrik Wien is offering certain individual and communal facilities to people as a trade-off. The inhabitants then become members of the community and they have certain responsibilities that keep them engaged in the operative process of the project. The system also builds upon an economy of solidarity by offering jobs to targeted social groups, accounting for the difficulties they might face in the current general employment market.







08. Bricks fired inside earth building that serves as a kiln and, after firing, home for children and foster parents (Malhar 2008a)

©2008 alka@malhar.net

### *2-3-c Volontariat Home for Homeless Children*

Pondicherry, India

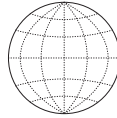
(Fitz et al. 2019, 227-231)  
(Anupama Kundoo Architects n.d.)



institutional agency



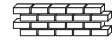
social agency



environmental agency



material agency



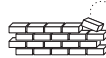
architectural agency



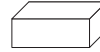
organization



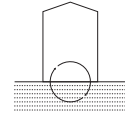
program/function



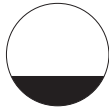
self-construction



materiality

structure-environment  
relationshipself-  
constructioncreative use of  
urban wastebuilding as  
producer and  
consumer

use of clay



affordability

material  
availability

As opposed to the previously discussed projects, Volontariat Home for Homeless Children is a case that is intriguing on a material, building process level rather than organisational. Though the project was born at the initiative of the Volontariat non-governmental organisation and it was realised with the help of several donors from the local civil society and other organisations, I consider the interaction between the human and the non-human, physical matter even more inspiring. Of course, highly human boundaries such as economical, social and climatic were influencing the material manipulations of this project. Optimising the cost and the building process afforded this project the possibility of being a succesful example of social justice where homeless children can grow, learn and become part of a network of care and love.



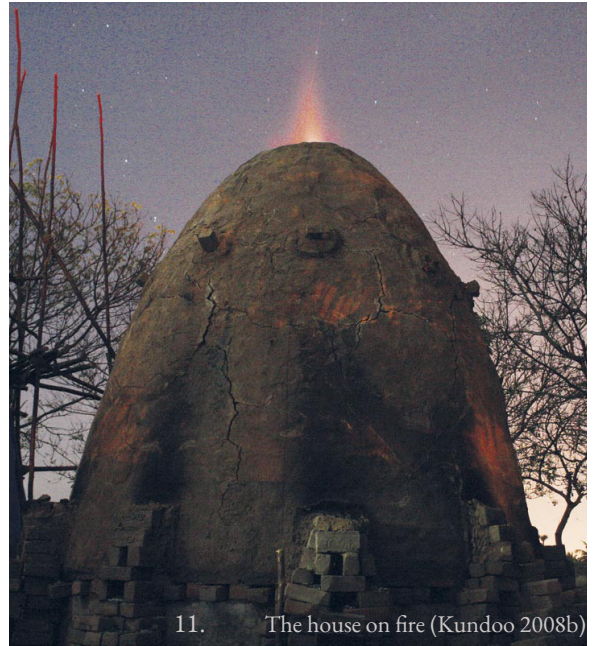
09. Baked-in-situ mud construction to construct the low-cost housing complex (Kundoo 2008a)

Matching all its social ambitions, this project is creatively using matter in its development. Local natural resources and urban waste have been used for the creation of literal adobe brick kilns that would not only consume material in its lifespan, but also produce material (fired-bricks through burning) while strengthening its own structural properties. So, the main construction elements are produced with the soil of the area. The result is the formation of mud bricks, which are sun-dried and then stacked together with an earth-based kind of mortar, generating a dome-like structure. This is filled with stacks of other sun-dried bricks and then fired as a whole, reinforcing the dome and acquiring a new construction element for the rest of the building process: fired bricks.

Waste is recycled and upcycled by using its structural qualities to reinforce earth walls, by reusing certain elements as (lost) formwork for window openings, or even by finishing the built structures and surrounding areas. The main elements reintegrated and repurposed in this project are glass bottles, bicycle wheel frames, broken tiles and glass pieces.



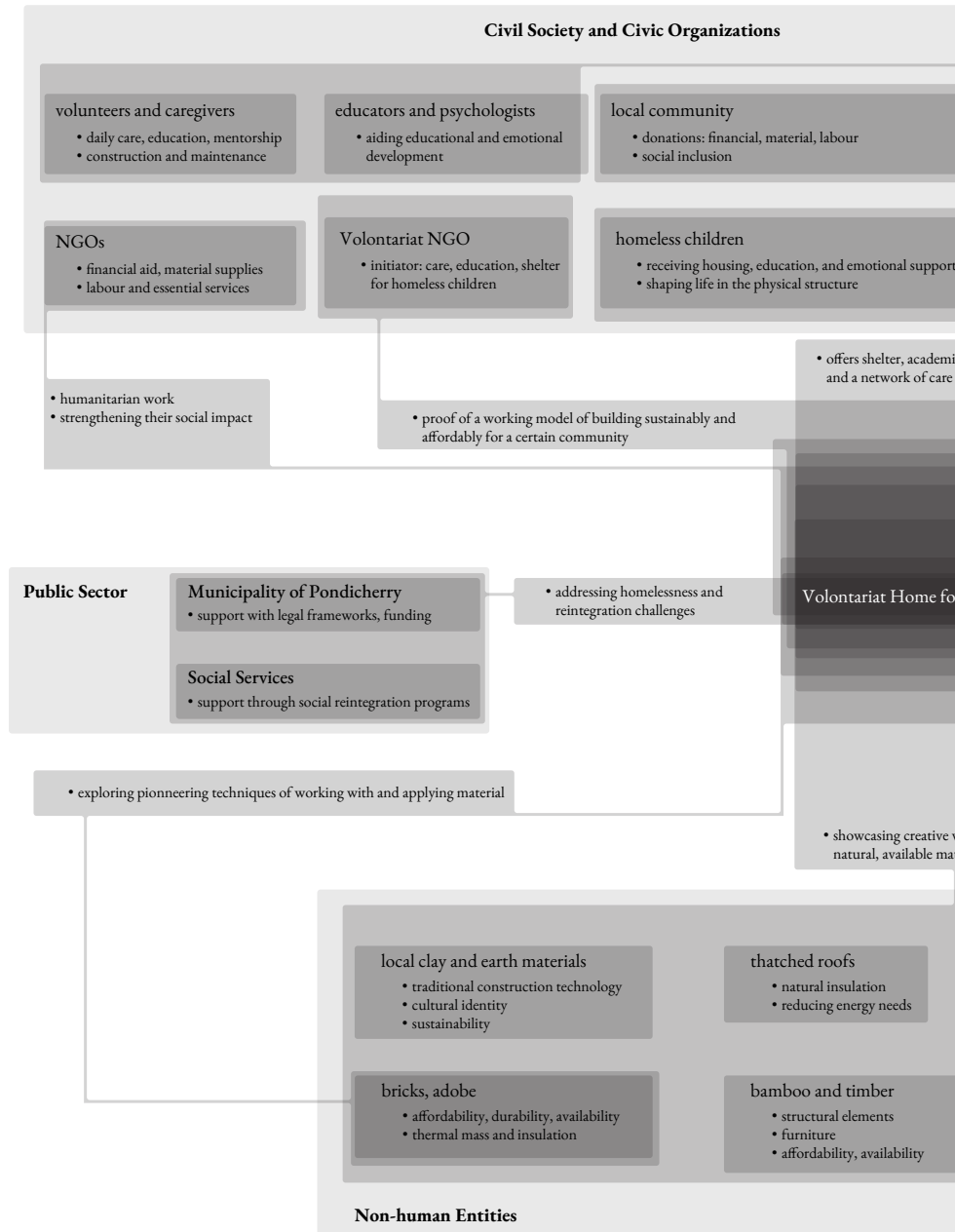
10. Bicycle wheel frames used as formwork (Malhar 2008b)

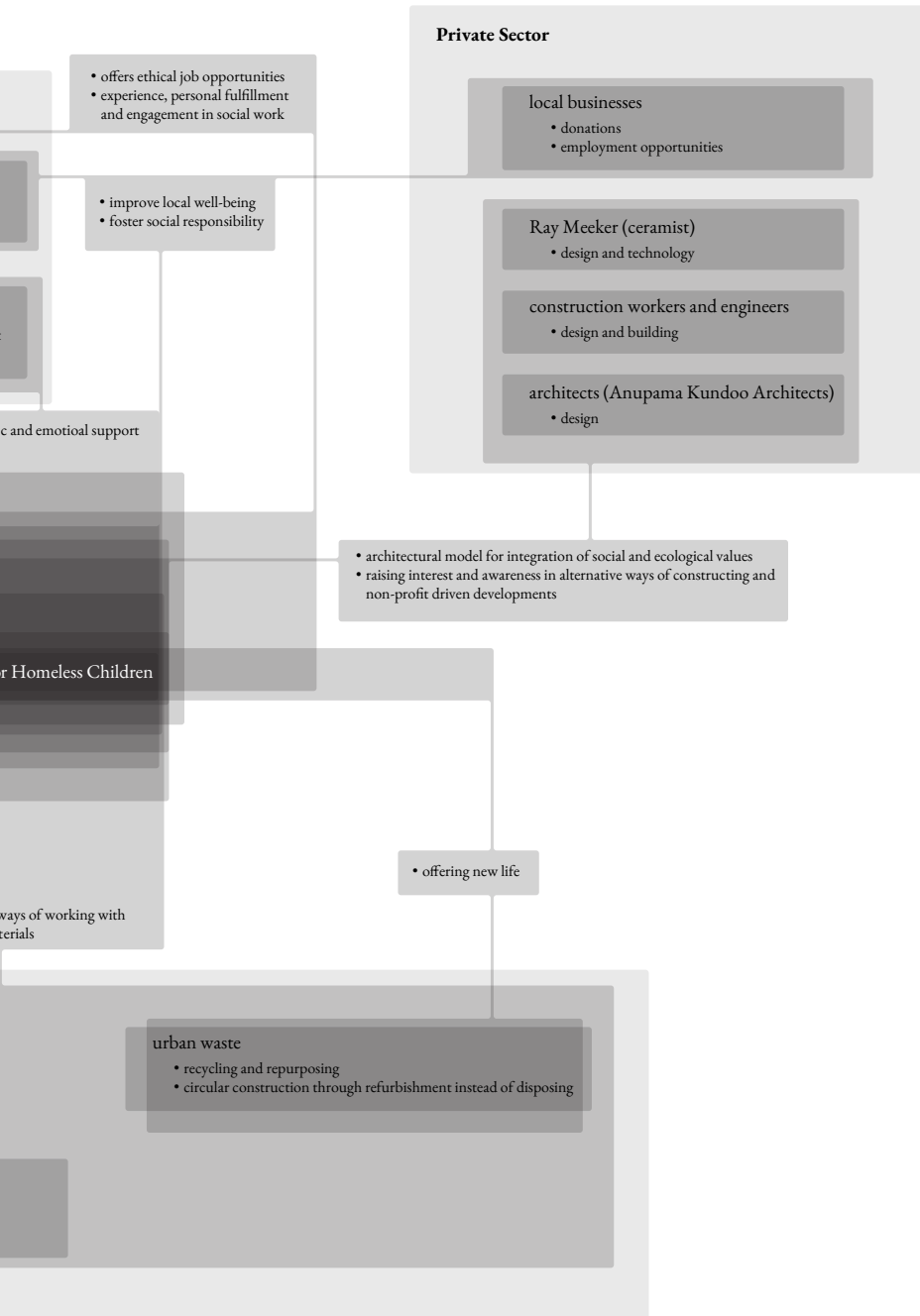


11. The house on fire (Kundoo 2008b)



12. Glass bottles masonry for toilet blocks (Kundoo 2011)







13. Buurman workshop (Buurman n.d.)

(Buurman 2015)

### ***2-3-d Buurman***

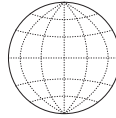
Multiple locations



institutional agency



social agency



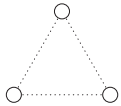
environmental agency



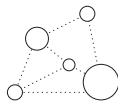
material agency



architectural agency



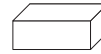
organisation



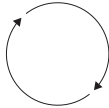
program/function



self-construction



materiality

structure-environment  
relationshipneighbourhood  
activationknowledge  
exchange

social condenser

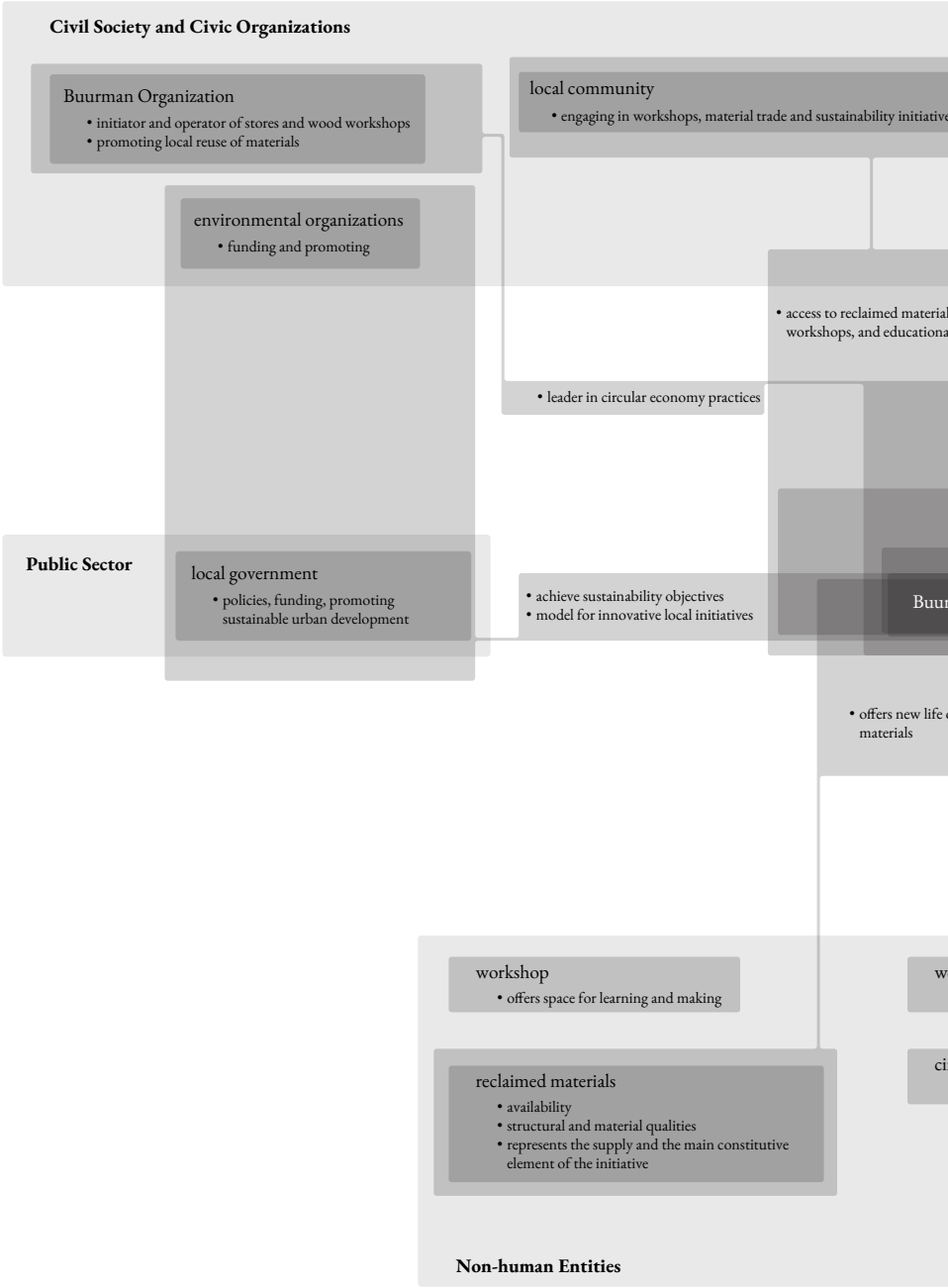
action-based  
engagement strategies

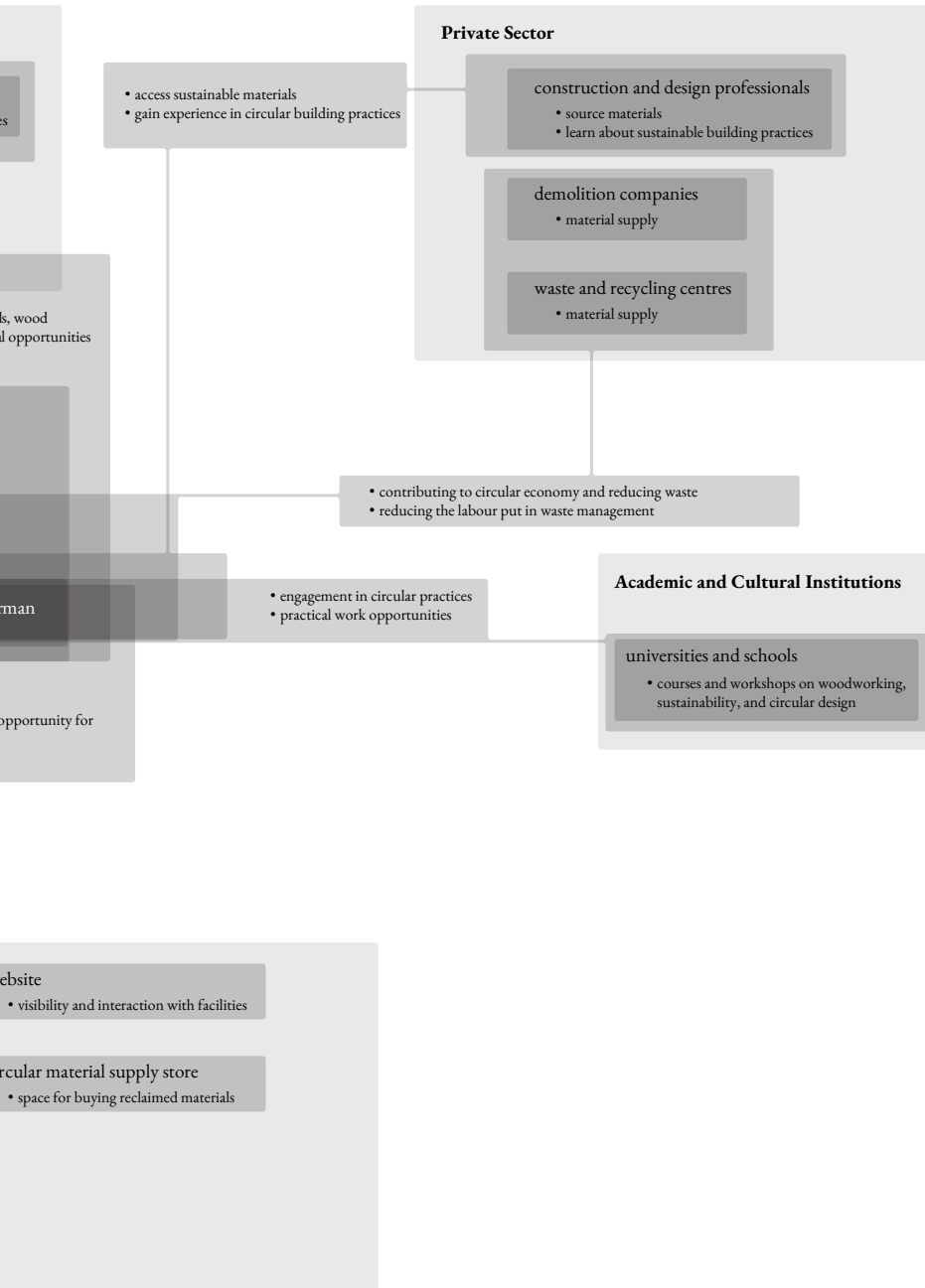
Buurman is a great example of an alternative material market as well as a space for exchange of matter and knowledge. This initiative collects used material and then makes it available for reuse by a new group of actors. For my proposal this is an interesting case that can inform the programmatic principle of the repair workshop, the educational aspect of it, but also the way of supplying and managing a material stock, and offering it back to the interested actors which would give the used materials a new life. In this case, the function of Buurman as well as its operation, and specific engagement strategies that stimulate residents of a certain area in the proximity of the physical location of a Buurman intervention to become part of this community can all become productive inspirations for the application of my proposed model.

I think that social justice and financial opportunities are not as carefully taken into consideration in this project as in the previously visited ones, but still the approach of this initiative is inspiring innovative ways of implementing a local workshop to a neighbourhood. The planning of specific types of crafting workshops in which people can learn certain skills, get an introduction about the functioning of several machines, and furniture construction seems to work as a social condenser for the people that are interested enough in this activities to pay a decent amount of money for it. However, I would like to argue that this idea could be democratised even more by having an exchange system that is not per se monetary-oriented.



14. Participants of a furniture making course with their cabinets (Buurman n.d.)







15. Children taking over the bird hide (McLean 2015a)

### *2-3-e Kullurk/ Coolart: Somers Farm and Wetlands*

Kullurk, Melbourne, Australia

(NMBW Architecture 2018)  
(Baracco et al. 2018)



institutional agency



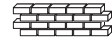
social agency



environmental agency



material agency



architectural agency



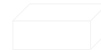
organization



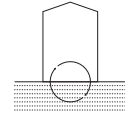
program/function



self-construction



materiality

structure-environment  
relationshipaccounting for  
non-humansimplicity as affording  
physical frameworkminimal  
disruptionsever-evolving  
designsubject to  
ageing

Kullurk Coolart is a precedent that inspired me because of its treatment and attitude towards the landscape. I think that this is the one where the organisational structure and the human entities with their corresponding relationships mattered least for my proposal. Conversely, the architectural intervention in this project interests me more. Here the system is more traditional. A design team analysed the site and then designed certain interventions: a farm extension, a bird hide and the wetlands around them.

The traditional routes of indigenous people of the area have shaped the design of the area, respecting the cultural background of the place and bringing it forward into the current knowledge of the site owners and participants. Water bodies were expanded upon to give more space for the local biodiversity and ecology to grow and thrive.

More than that, the wind and migration habits of local bird species have shaped the placement and form of the bird hide structure which also attempted to minimise its hinderance of the natural ecosystem by having minimal intervention strategies with prefabricated foundation and structural elements and simple assembling principles that do not produce too much noise or do not need extensive site preparations.

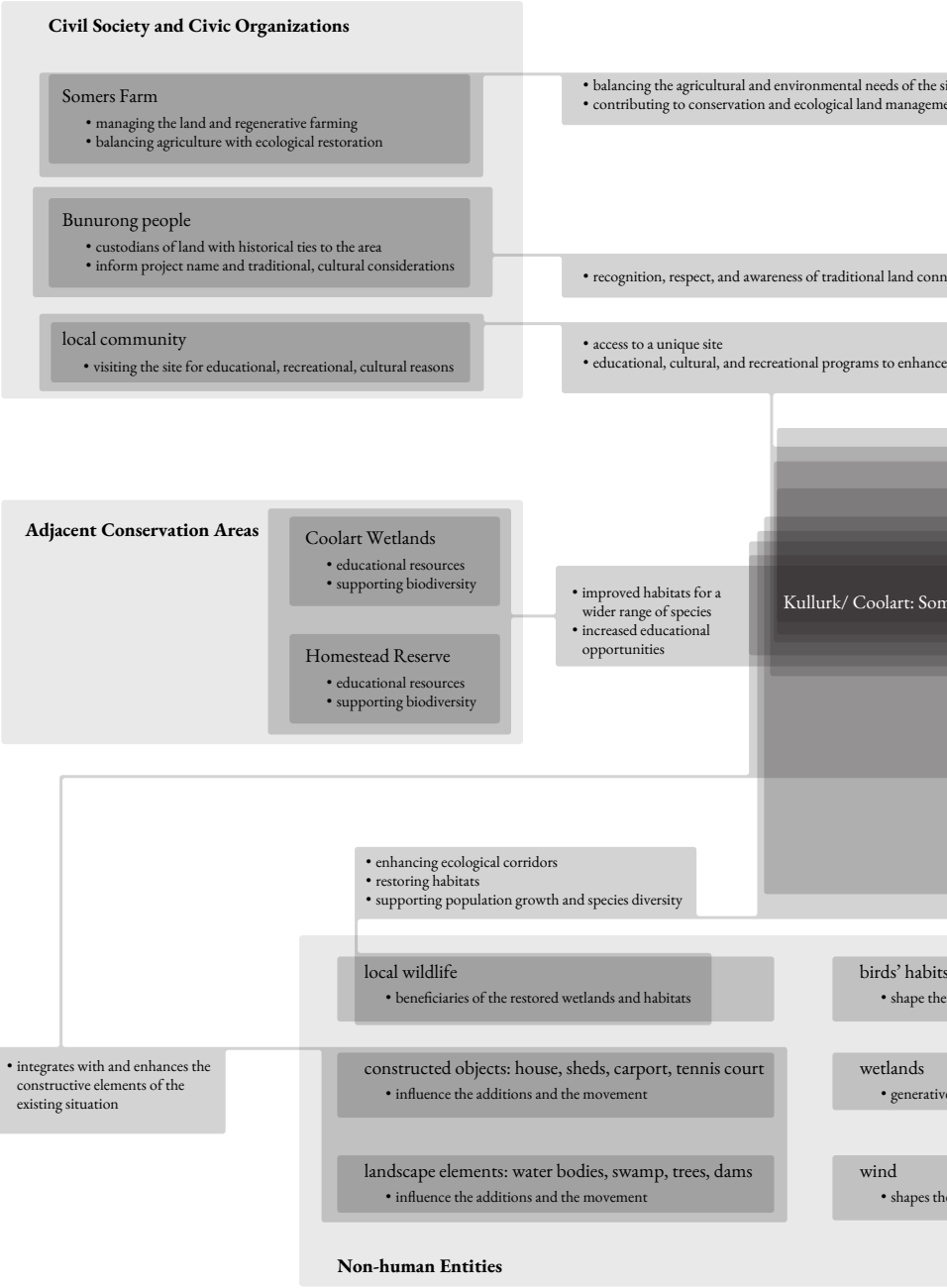
The simplicity of the intervention is offering great flexibility and opportunities of interaction between matter. It is a good example of a physical framework design that is in constant changing process, never finalised but always evolving with the different actors that are acting upon it. I think that this bird hide also

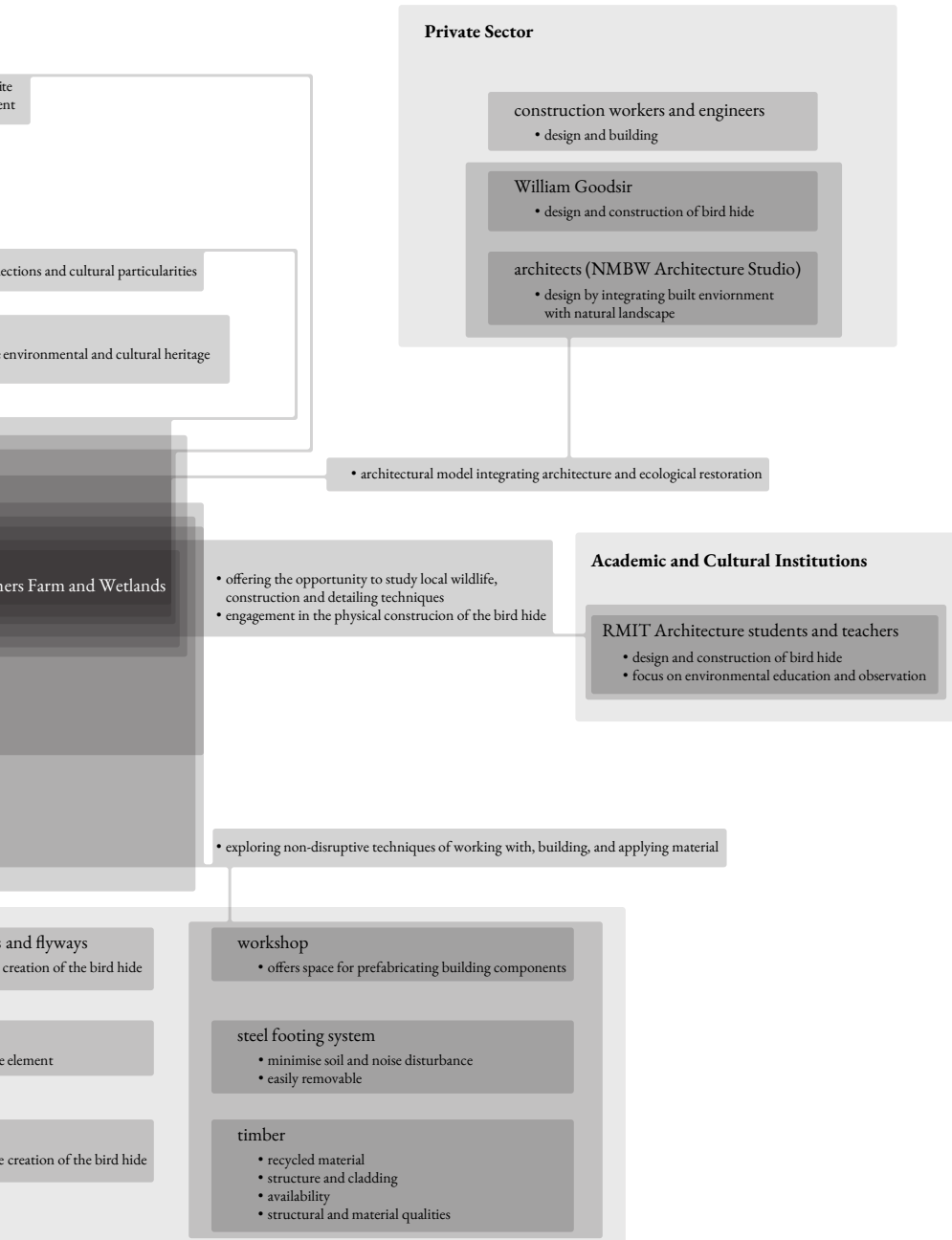


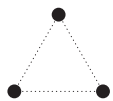
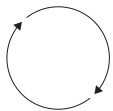
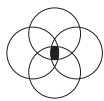
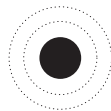
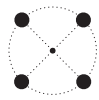
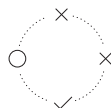
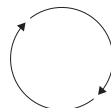
16. View from wetlands towards bird hide (McLean 2015b)



showcases how a human built structure is almost gifted to non-human entities and then subjected to the acts of time, weather, bird interactions, insect involvement, erosion, wind forces, hits of rainwater, gentle waves of water bodies, fungi growth, plant appropriation and so on. This simple human framework becomes part of both the human and the non-human realm, as any built structure does. But I tend to believe that the effort put into embedding it in the ecosystem with minimal disruptions and simple material presence gives it a special value as an entity that becomes unifying for the human and non-human contexts.





cooperative  
governancecommitment over  
capital exchangeinfrastructure  
interplayneighbourhood  
activationcollective  
ownershipbending  
normscollective  
responsibilitycompensation  
strategyeconomy of  
solidaritytest and proof  
design strategyknowledge  
exchange

affordability

self-  
constructioncreative use of  
urban wastebuilding as  
producer and  
consumeraction-based  
engagement strategies

social condenser



use of clay

material  
availabilityaccounting for  
non-humansimplicity as affording  
physical frameworkminimal  
disruptionsever-evolving  
designsubject to  
ageing

## 2-4 discussion and system proposal

This paper presented a theoretical groundwork based on existing literature and precedent projects in order to inform the proposal of a system of collective governance and cooperation within a primarily residential area in the peripheral neighbourhoods of a neo-liberal city. This proposal aims to extend upon the concepts discussed in literature by applying them into a practical context and physical intervention.

To support this, five case studies were analysed. These offered insight into the organisational structures of each example and the relationships between human and non-human, material and immaterial actors. These insights served as inspiration for the development of the proposed system, shaping its suggested actions. However, the performative aspects of those actions are not directly replicated from the precedents, rather they are adapted to suit the specific context of my proposal, taking into account the overarching concepts of critical care, maintenance, and repair.

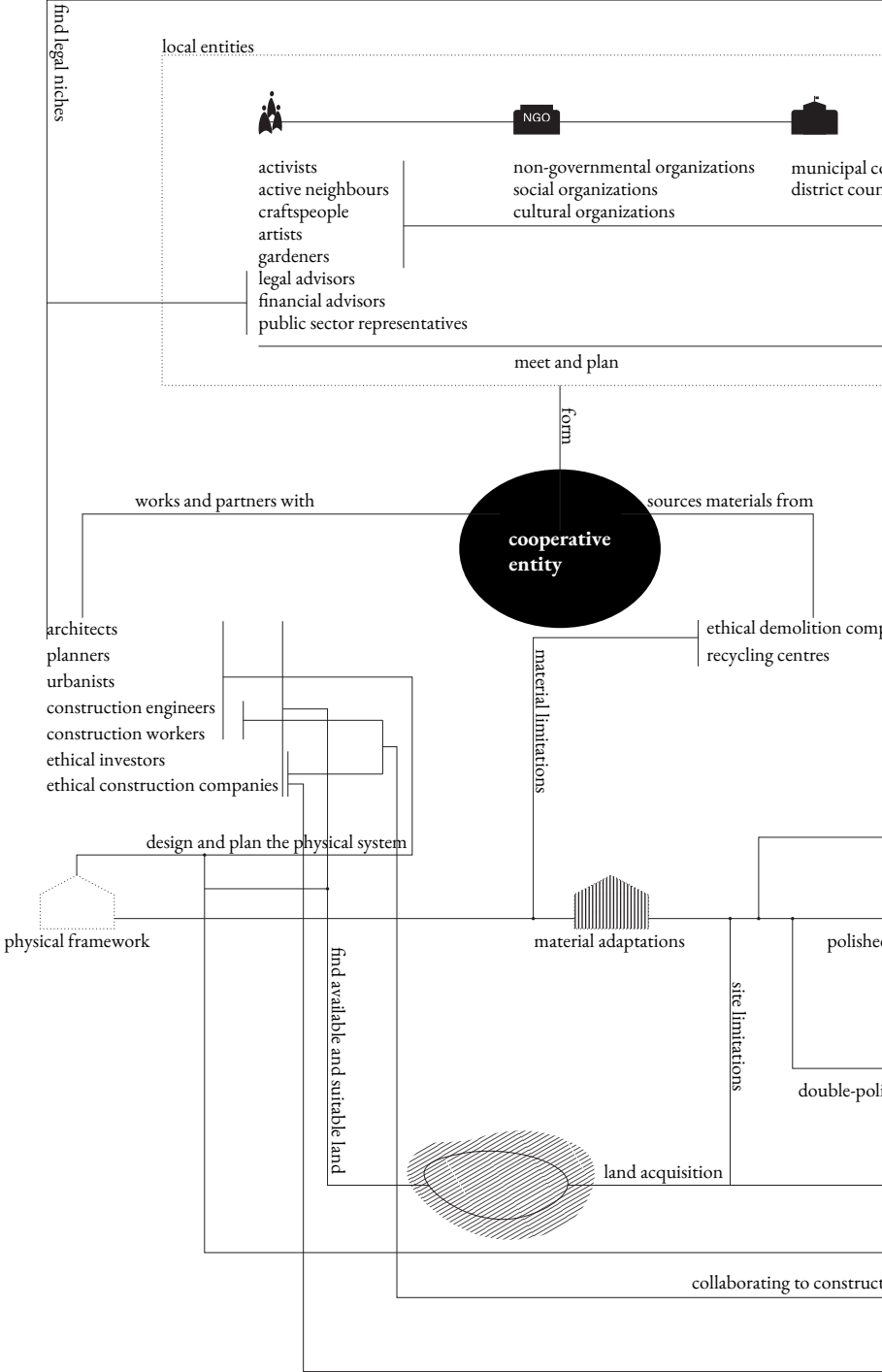
The case studies also function as partial experiments, demonstrating the feasibility of the principles being tested in this system. Each case addresses different forces that influence their evolution and links these to distinct phases of development. This reveals specific dependencies that are likely to emerge within the lifecycle of a successful system.

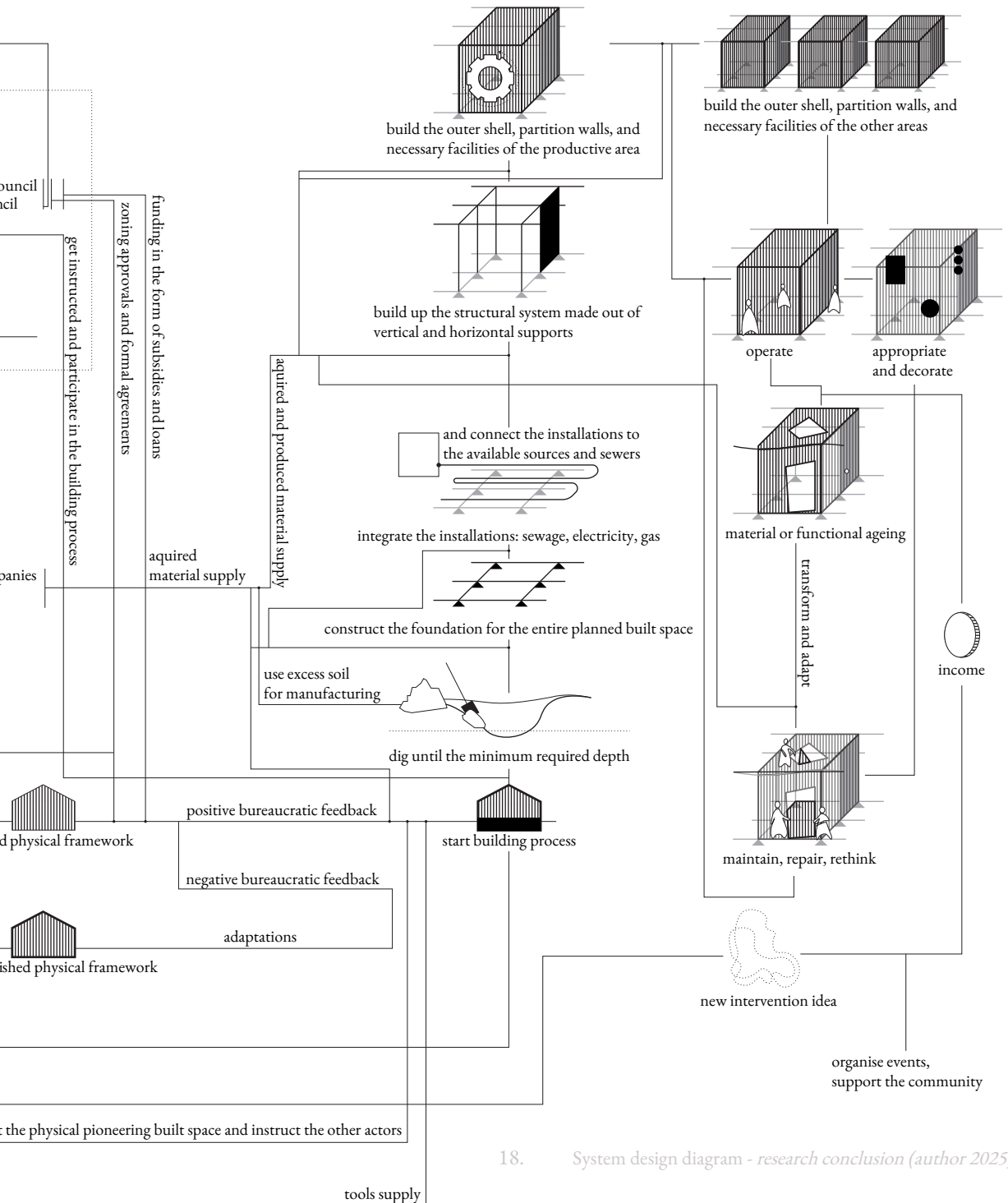
Informed by these observations, my proposal integrates similar agency-phase dependencies

into the generation and operation of an effective model. The initiation phase is linked to social and institutional agencies, which are responsible for forming a legal body that can administrate and maintain the system by partnering with formal organisations. In the planning phase, material and environmental agencies join these actors. The environment influences essential decisions in the physical evolution and planning of the system, while the affordances of material entities play a formative role in the form and structure of the built intervention.

When reaching the construction phase, mainly social, environmental, and material agencies shape the physical realisation of the built structure. Finally, the operation phase is governed by social, environmental, and architectural agencies. The built structure shapes the way actors interact with the space, while the actors themselves determine how the space transforms or gets transformed over time. In turn, the environment is a continuously shaping agent of the daily rhythms and rituals of the system's lived experience.

The discussed agency-related considerations, together with the key characteristics presented on the left, serve as guiding principles in outlining, refining, and evaluating the proposal and they all have led to its current form, diagrammatically illustrated in Figure 18.







The proposed system seeks to democratise and de-commodify public space, aspiring to empower all actors (both human and non-human) to actively engage with space, with their environment. It offers a flexible framework and practical tools for navigating formal and legal structures, with the intention of bending existing policies and supporting cities in becoming more ethical, equitable, and ever-evolving collective constructs.

The process begins with the formation of a cooperative entity composed of local residents, organisations, and public institutions. As illustrated in the diagram, the cooperative initiates discussions, planning sessions, and partnerships with various stakeholders, such as architects, craftspeople, construction workers, ethical investment companies, to start collectively developing a design for a built intervention within their area.

The creation of a simple physical framework at this stage is crucial, as it enables self-construction and lowers the barriers to participation in later phases of the process. Simultaneously, land acquisition becomes an essential step in finalising the physical framework and initiating construction. The left side of the diagram primarily represents the formal, organisational aspect of the system, while the right side focuses on the construction process and the physical aspects. These elements are interdependent, they always inform each other, and are both subjected to citizen participation.

Therefore, it is essential to view this system proposal as preliminary and not definitive. It must be tested and refined through practical implementation and continuous feedback.

The diagram is accompanied by a manifesto, presented on the following pages, which serves as a set of adaptable guidelines to support the effective functioning and future evolution of this system.

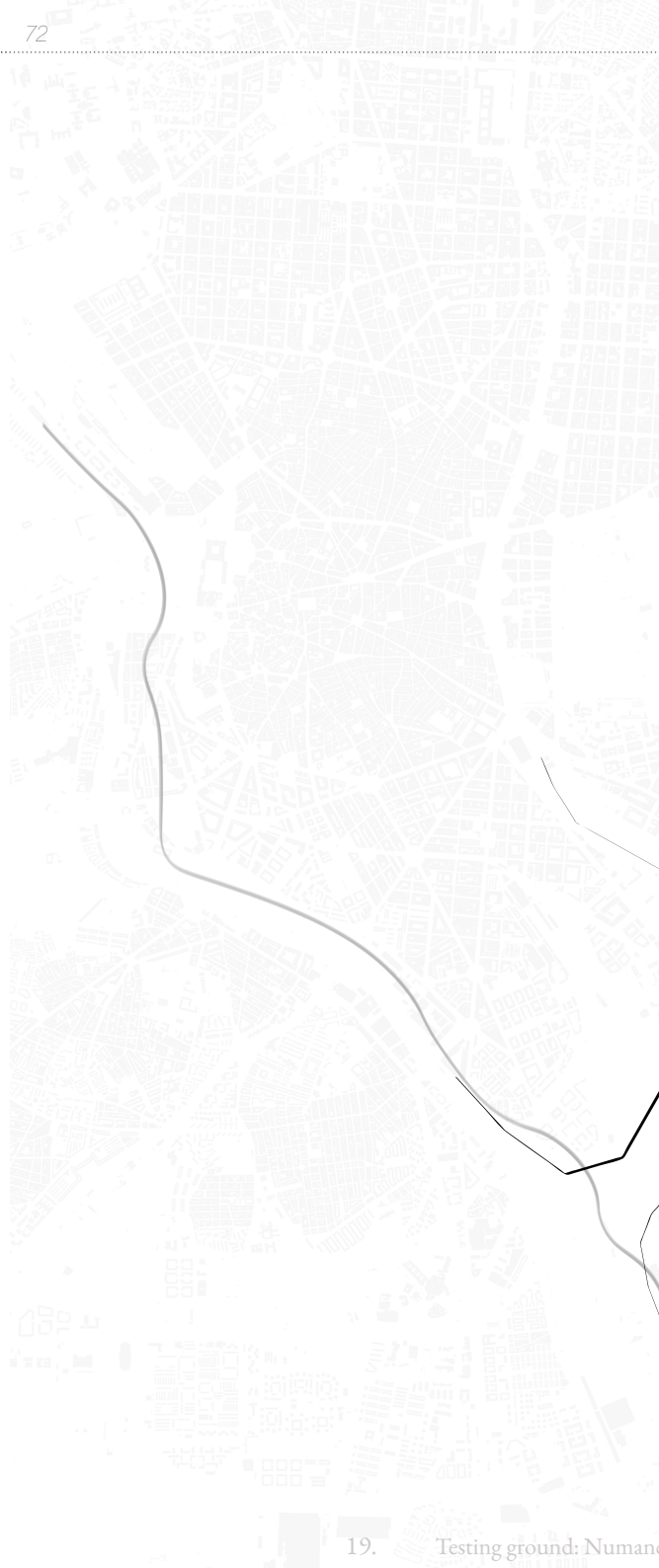
- + Initiation of the system is performed by actors who collaborate and form a cooperative entity.
- + The cooperative entity becomes the legal representative of the involved actors and generated system. The architects guide.
- + The architects define, together with the planning team, neighbours and involved institutions, a set of guidelines for the ideological and organizational development of the system.
- + The architects, together with the building and design team, propose a set of guidelines that will aid the building process of the constructed space of the system.
- + All the steps of the process should be identified, discussed and then contemplated upon.
- + The identification does not need to happen in the initiation phase, but the sooner the better.
- + The architects and planners remain involved in the operational part of the process as advisors of the cooperative, thinking along with the other members of the organisation.
- + The architects advise.
- + Neighbours are responsible for maintaining the healthy life of the project, both physical and ideological.

- + The system questions and problematises the current care binary and the serviceability of the acts of care in our current cities.
- + The system brings people together.
- + The system educates and reinforces.
- + The system reduces waste.
- + The system rethinks current ownership norms.
- + The system introduces collective responsibility and collective ownership values in the creation of public and communal facilities.
- + The system offers accessible and affordable services to the neighbourhood.
- + The system offers convenient and targeted jobs for the neighbours.
- + The system takes its time and does not rush.
- + The system slowly becomes self-sustaining.
- + The system ends up having a life of its own, being able to outlive the designers and planners who created it.
- + The constructed space acts as an active participator in (sub-) urban life.
- + The constructed space serves the desires and needs of the involved actors.
- + The constructed space is organically and slowly built up.
- + The first constructed component affords to be used as a meeting room where planning for the next steps of the process can occur.
- + The constructed spaces will evolve and can be repurposed later in the process.
- + The first construction activities can be performed by professional ethical builders, but neighbours from the area should already start to become involved in the construction process.
- + The cooperative entity becomes the collective owner of the constructed space and the system's facilities.
- + The materials used for the constructed spaces are reused, repurposed, remanufactured, or refurbished, or they are self-manufactured with local natural materials by the actors.
- + The materials used for the constructed space can be obtained from the urban waste of construction material factories, recycling centres, individual donors.

# 3

*fieldwork*





### *3-1 testing ground*



The testing ground of my system proposal is the neighbourhood of Numancia in the district of Puente de Vallecas of Madrid. Situated in the South-East region of the city, between the districts of Villa de Vallecas (on its East Side), Moratalaz (North), Retiro (North-West), and Usera (South-West), Puente de Vallecas is a residential area which is separated from Retiro and, consequently, from the city centre of Madrid, by the M-30 highway which becomes a strong border between the two parts of the city. This edge also denotes essential differences between these two sides in terms of urban tissue, economic level, urban facilities, maintenance level, demographics, rent level, and planning and investment characteristics.



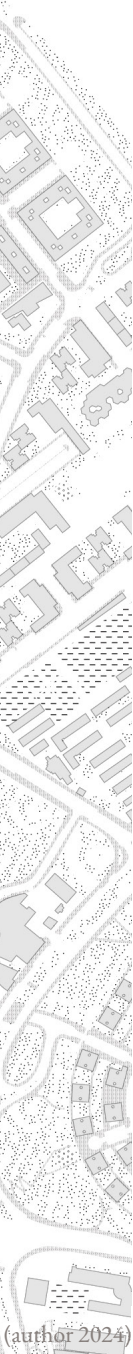
Puente de Vallecas became the laboratory for the proposed system design because it has several characteristics that make it fit for an intervention as the one synthesized in my graduation project. In the appendix (Appendix A) of this document there is a short summary of the historical development of this district, but in the next paragraphs the features that make it suitable for my proposal are outlined.

First, the rebellious nature of its community is an important factor as it means there is a strong drive of change and political interest among the neighbours. This would be prolific inherent qualities of the initiators and participants of the progress of this system. An active, implicated collective that can get things moving is a great first step towards successfully initiating, operating, and maintaining a cooperative system.

The proximity to the city centre and, conversely, its economic contrast, and full detachment from it make Puente de Vallecas an interesting point of departure for the introduction of new facilities and new forms of decentralised cooperative governing entities which can challenge the current societal norms and the public-private sector binary in the market-oriented city that is Madrid nowadays.

Finally, its current primarily residential function and its historical industrial and agricultural value for the city form a good base for reintroducing productive facilities in the area that can bring people together, open up to non-human actors and make the neighbourhood grow into a more self-sufficient spatial system, building upon an economy of solidarity by providing jobs, affordable homes and accessible facilities to its inhabitants.





I have introduced Numancia in Puente de Vallecas as the laboratory for this intervention. In the map on the right the black surfaces represent the specific locations within the neighbourhood of Numancia that I have chosen as potential intervention areas. They are either empty spaces, abandoned buildings or open and closed spaces having an unactualised potential at the present moment. They can therefore become productive neighbourhood activators and that is why they have been selected. After this step I have analysed them through the following lenses (see Appendix B):

- |                     |                     |
|---------------------|---------------------|
| + Ageing            | + Agents of care    |
| + Scale             | + Program           |
| + Open/ Built space | + Porosity          |
| + Materials         | + Access            |
| + Perceived safety  | + Maintenance level |

Based on the performed investigation, I have chosen the location marked in the map as the site for the pioneering intervention because of its relatively generous size and material palette with their specific ageing affordances. The geographic location of this site in relation to the surrounding facilities also played an important role into the decision-making process, making it a relatively centrally positioned open space which offers great potential for the placement of a neighbourhood activator. Last but not least, the ambiguity of the care agents of this specific location make it a perfect testing ground for the proposed system and pioneering constructed space.

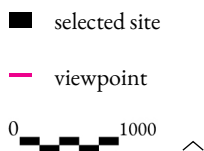


21. Selected site and viewpoint (author 2024)

***3-4 selected test site for pioneering intervention***



Site location seen on Google Street View, 2025



The location chosen is located next to Cerro del Tio Pio, surrounded by residential buildings but also social, educational and healthcare services, a firefighter museum and a recycling centre as well as a few food and drink facilities.

The image represents the parking lot found currently on the location of intervention. It seems to be an appropriated lot which used to be empty because of the lack of arranged infrastructure and maintenance. The ground is mostly covered in sand in the visible area of this picture.



23. Selected site and viewpoint (author 2024)

However, there are also two areas that are fenced off and overgrown with relatively low vegetation and trees. (Figure 24)

Most of the buildings on this site have at least one facade that is fully closed, sort of turning their back towards one side or another of the location. Therefore, there are plenty of vertical surfaces that can evolve into more active, open structures which would accommodate more permeability, visibility and activity in the area.

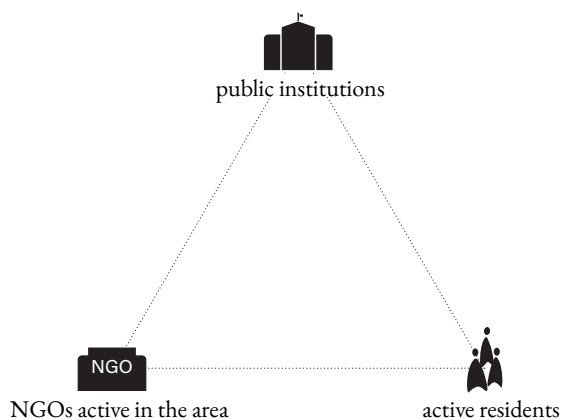


24. Site location seen on Google Street View, 2025

■ selected site

— viewpoint

0 1000



### (repair) atelier

jobs for local craftsmen  
building knowledge and  
on building and main  
elements, electrical lam

### daycare centre

activity for elderly popu

### café/ bakery

jobs for other groups of  
generating revenue and

### residence

housing for responsible  
instead of monetary p  
home in return for the  
aspects of the ensemble

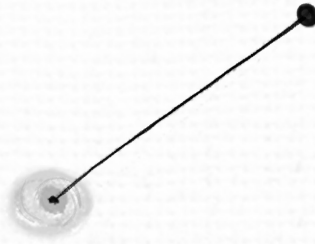
## 3-5 pioneering intervention



keeping the space lively and active all day long



promoting a sense of collective vigilance through activity



community center as project initiator

study area

activity for people with financial and legal expertise

building knowledge and skills within the community of residents on taxes, subsidies and loans related to the maintenance and resilience of their building blocks

nightcare centre

jobs for other groups of people

communal dining room and leisure area

jobs for other groups of people

offering meals, a space to pause and socialise

manufacturing workshop

jobs for local craftsmen

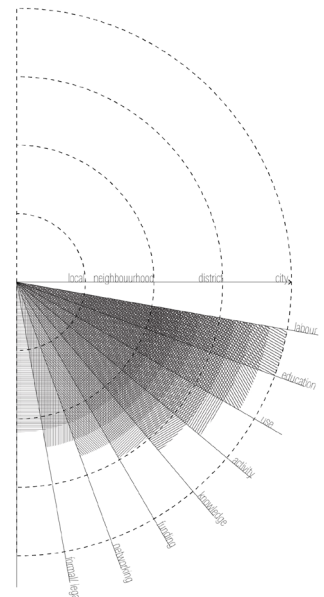
building knowledge and skills within the community of residents on construction techniques and material manipulation, with a focus on the primary materials available and commonly used in their neighbourhood

### Overview

For the specific case introduced, I have listed and mapped the possible actors to be involved in the process and their relationship to the proposed project. In the map on the right there is an overview of the actors that could be connected to the project, in what way and on what scale.

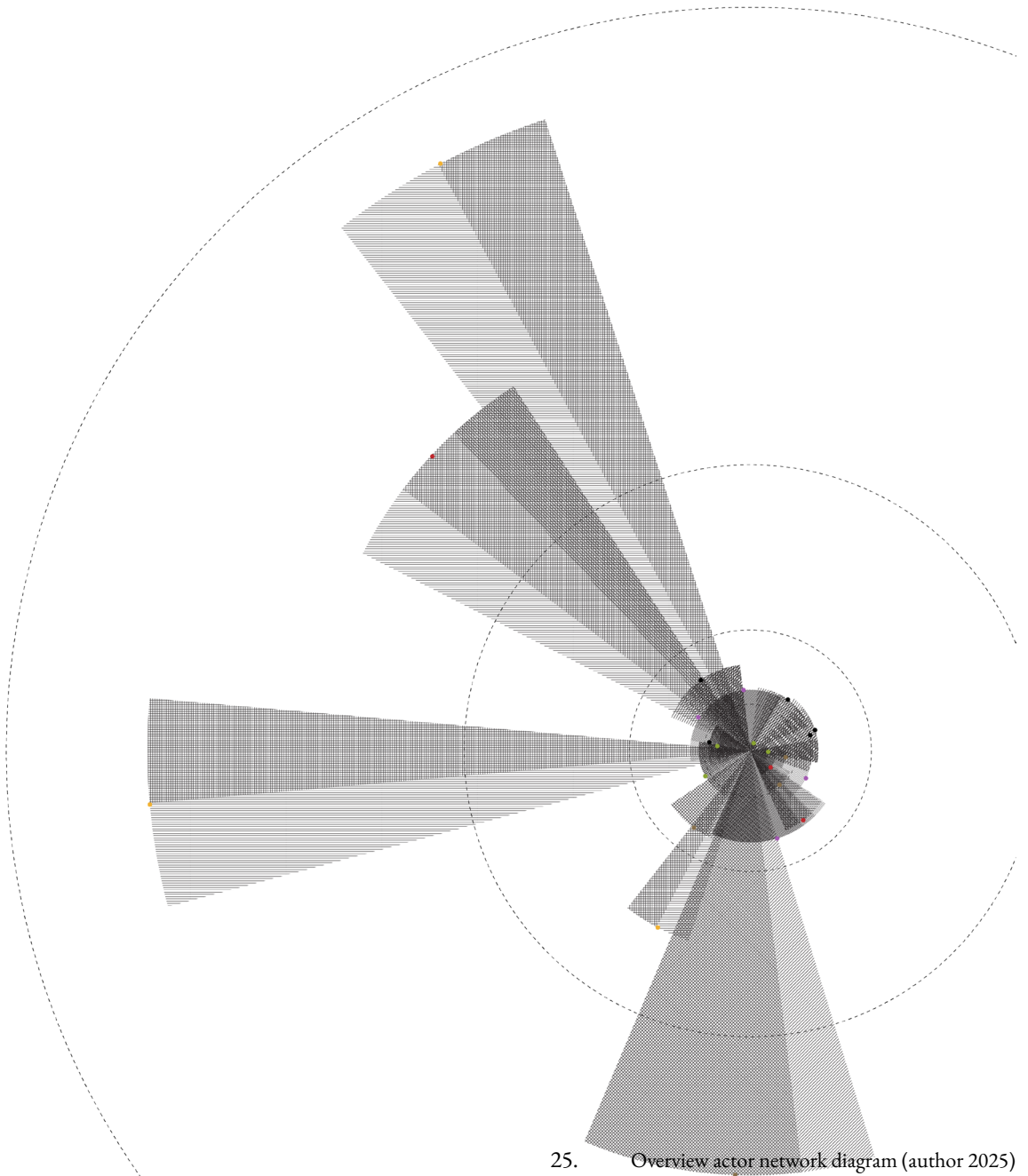
The following pages will separate the diagram and tackle the different scales of relationships:

- + City and District level
- + Neighbourhood and Local level
- + Community level



- larger social organization
- local social organization
- public institution
- recycling centre
- cultural centre
- local community

### 3-6 agents and their relationship to the pioneering intervention



25. Overview actor network diagram (author 2025)

### *City level*

Fundación Integra

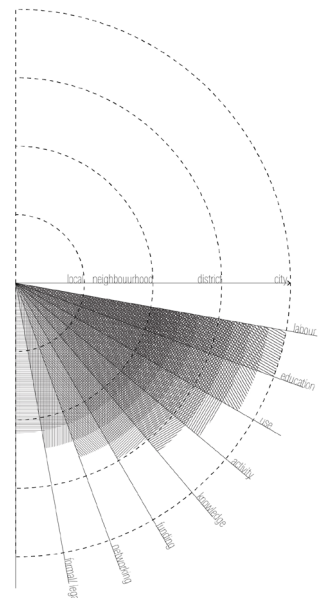
Ayuntamiento de Madrid

Asociación Proyecto Hogar

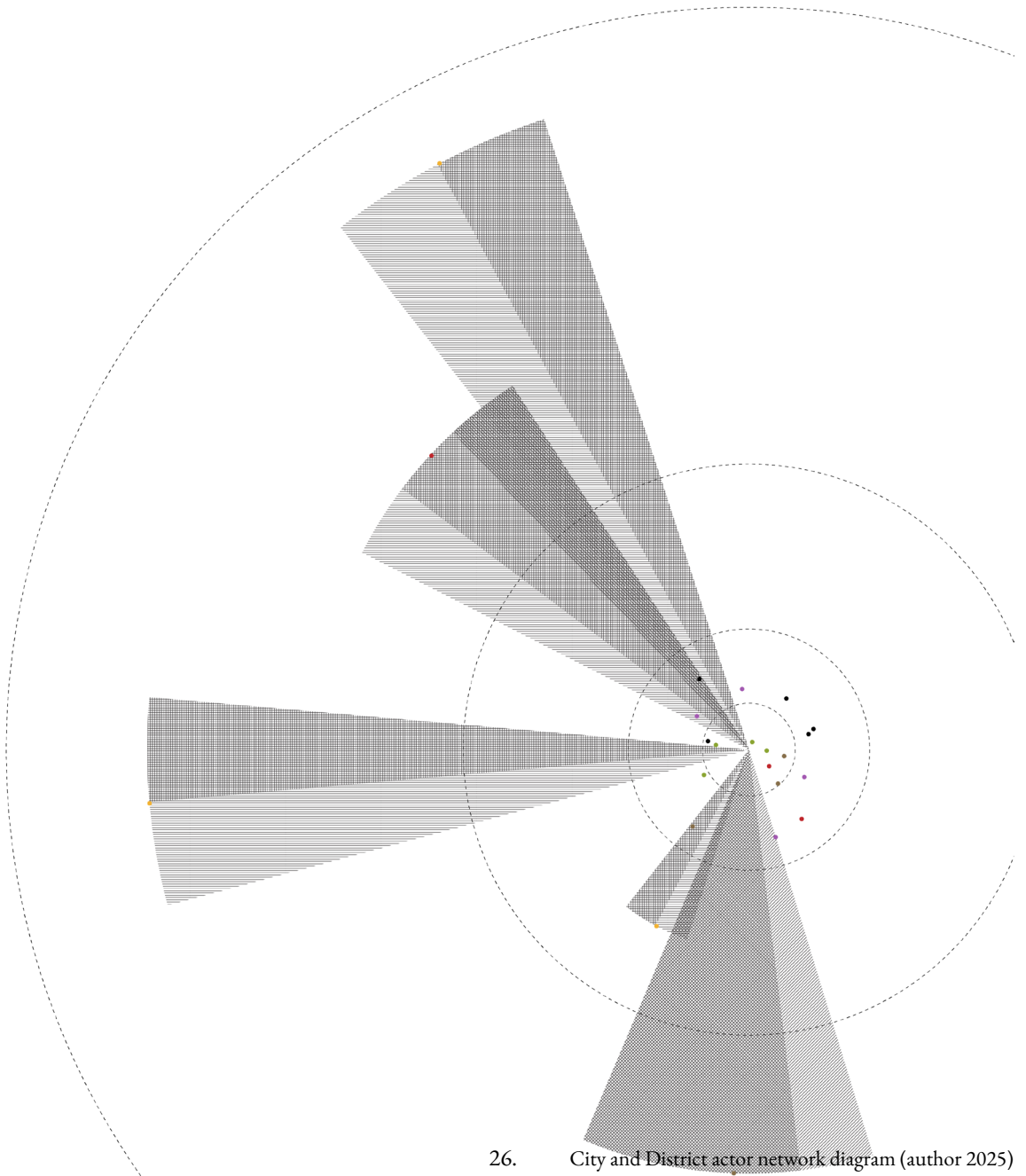
ECOárea

### *District level*

Provivienda



- larger social organization
- local social organization
- public institution
- recycling centre
- cultural centre
- local community



26. City and District actor network diagram (author 2025)

### *Neighbourhood level*

Junta Municipal Puente de Vallecas

Center Adult Education Albufera

PVA Sputnik Vallecas

Chatarrería Dani

Centro Social La Brecha

Asociación Atiempo

Asociación Cultural y Deportiva Valderribas

Asociación Cultural El Vado

### *Local level*

Sindicato Solidaridad y Unidad de los Trabajadores (SUT) Madrid

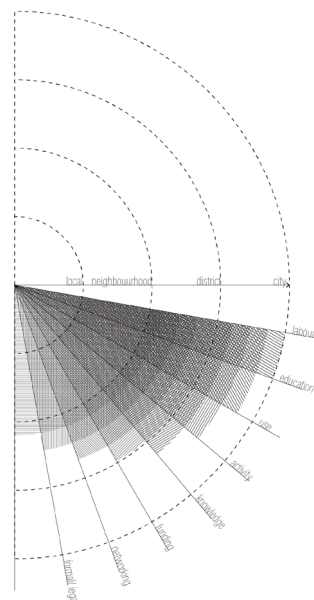
CRMFD Disability Services and Support Organization

Fundación del Lesionado Medular

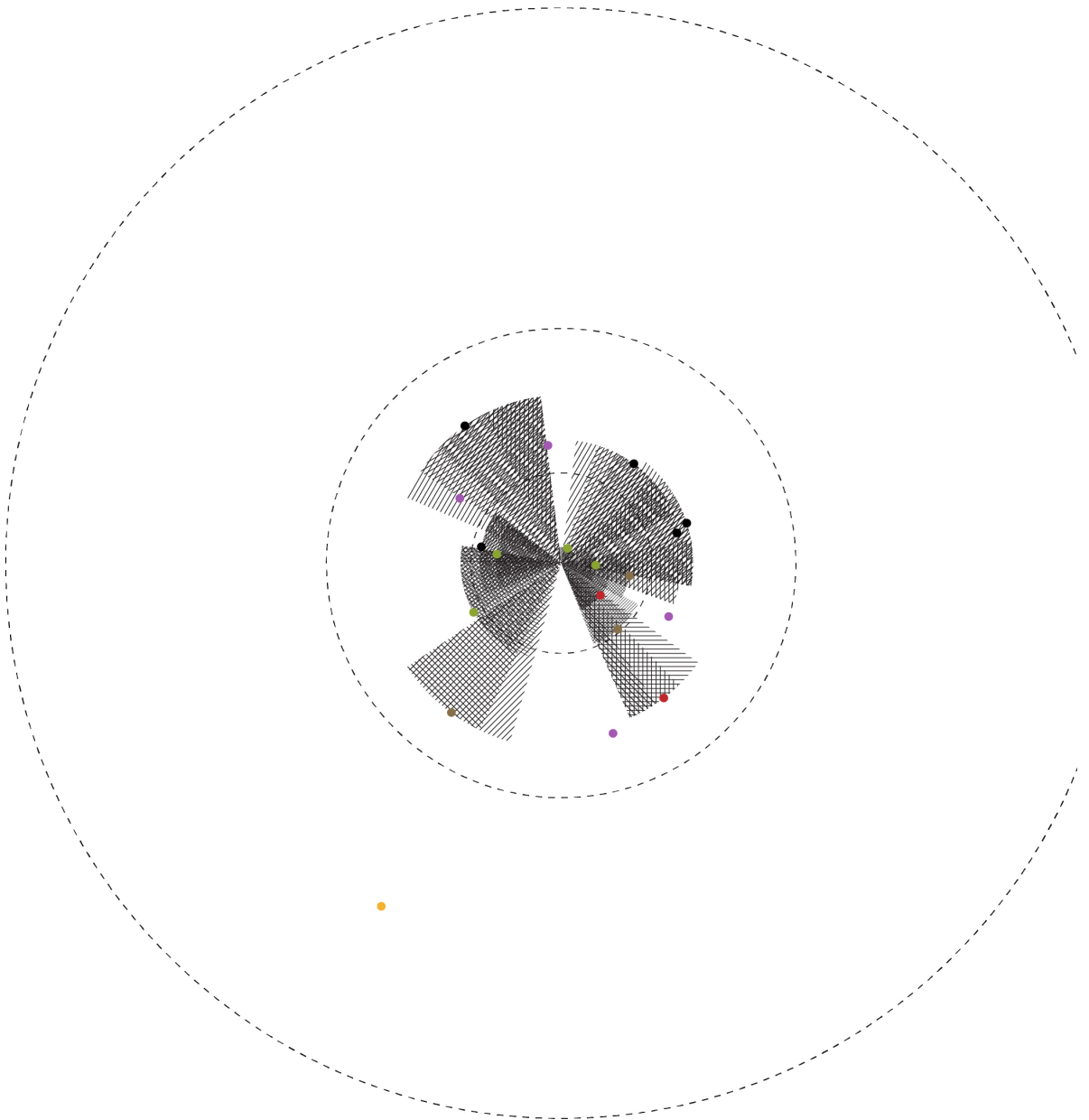
Punto Limpio Fijo Distrito Puente de Vallecas

Municipal Public Library Portazgo Alberto Sánchez Cultural Center

Reciclajes Garcia



- larger social organization
- local social organization
- public institution
- recycling centre
- cultural centre
- local community



## Community level

children (0-4)

children (5-12)

teenagers (13-17)

youth (18-24)

young inhabitants (25-64)

senior population (65+)

Spanish inhabitants

Ecuadorian inhabitants

Romanian inhabitants

Chinese inhabitants

Moroccan inhabitants

Bolivian inhabitants

inhabitants with other origins

(retired) construction workers

carpenters

potters/ ceramic artists

mechanics

brick manufacturers

electricians

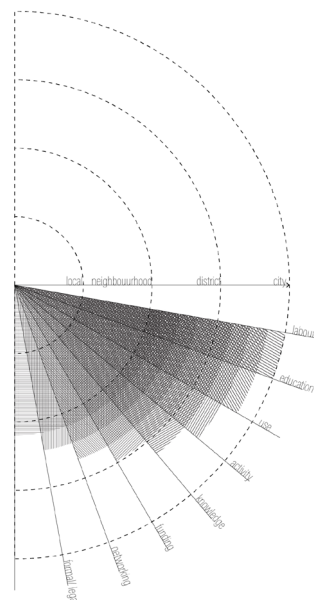
craftspeople

public service professionals

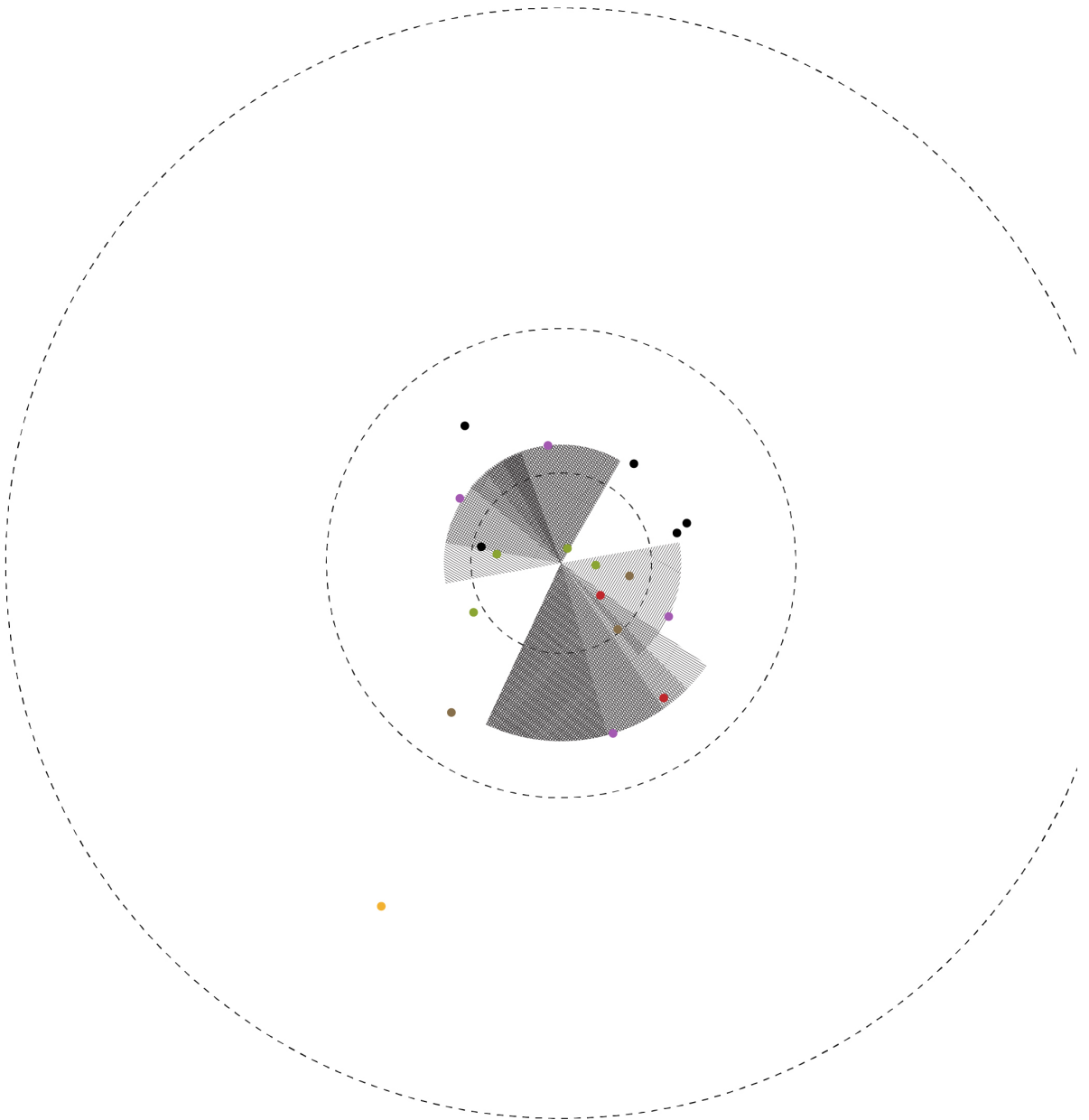
education service professionals

cooks

bakers



- larger social organization
- local social organization
- public institution
- recycling centre
- cultural centre
- local community



I began this project by viewing architecture as a supportive element of life. I believe that the role of the designer in placemaking holds equal importance to that of other participants in the process. Initially, I focused on how people come together and how those interactions could inform the creation of public, semi-public, and even private spaces within the fabric of a city.

Building on this perspective, my theoretical framework centred around the idea of critical care, particularly its role in the repair and maintenance of both social and physical structures. The project aims to expand these theories into the practical realm, challenging the neoliberal, finance-driven model of contemporary cities. To do this, I investigated five precedent cases that informed different aspects of my project (materiality, self-building, the relationship between structure and environment, organisation, and function), and addressed different agencies at work (social, institutional, architectural, environmental, and material). Through this process, I propose an alternative approach to market-driven cities: empowering local residents to collaboratively establish a separate system of governance and care within their neighbourhood. Ideally, this would encourage greater involvement in the rituals and responsibilities of maintaining everyday life, fostering collective responsibility and improving the quality of life in socially vulnerable urban areas.

While this system-focused approach became central to my thesis, the methodology outlined in my initial research plan led me to spend considerable time exploring the site-specific and historical context of Madrid. Although no longer directly related to the more generic system proposal I advance in my Master's thesis, this analysis laid a strong foundation for the later stages of the project. It allowed me to develop a targeted intervention within the broader framework of my proposal, shaped by both theoretical and case study inquiries. Looking back, I would say that even though the material and historical analysis of Madrid did not remain a priority throughout the project (especially in the initial phases), it proved essential in testing a context-sensitive application of the system, as explored in the second part of the project.

Yet, this participation-based proposal raises critical questions. What if people have no interest in being involved in such a system? I have not directly engaged with residents in Madrid to understand their perspectives. What if my proposals do not align with their lived reality? I believe that direct interaction (interviews, informal talks, and observations) with the inhabitants of a potential intervention area would offer valuable insights that could refine the system proposal. Such engagement would be a meaningful addition to the main methodology in a hypothetical future development of this project.

Furthermore, I recognise that my project may not fully embody the principles of care and empowerment that I aim to promote. The design could be more modest, simplified, and better suited to the context where it is being tested. Realising this, however, would require more time and further research. For instance, is the ideal of self-construction achievable within the current proposal? If not, how could the design be adapted to lower the barriers to participation, making the process safer and more accessible? I believe this is possible by identifying low-threshold construction methods: techniques that are easy to understand, testable in practice, and supported by clear step-by-step instructions that can be followed by virtually anyone.

Despite these themes that could use further development and refinements within this Master's thesis and given the (time) constraints of the graduation project, I have chosen to focus on the ambitious proposal of a system designed to democratise and de-commodify public space. This system aspires to empower all actors (both human and non-human) to actively engage with space. It offers a framework and practical insights into navigating formal and legal niches, with the goal of bending current policies and guiding cities toward becoming ethical, equitable, and ever-evolving collective constructs.

# 4

*appendix*



*historical summary of Puente de Vallecas*

(Juárez González n.d.)  
(Plaza 2020)  
(Pascual, Esser, and Ley 2024)  
(“Vallecas: The Rebel Town of Madrid” 2017)  
(Paisaje Transversal 2020)  
(Vega 2021)  
(Paisaje Transversal 2015)  
(Explotación del Padrón Municipal de Habitantes 2020)  
(Fascinating Spain 2022)  
(“Cerro Del Tío Pío” 2018)

The districts of Puente de Vallecas and Villa de Vallecas historically formed the rural settlement of Vallecas which originated in the late Middle Ages, being separated from the city of Madrid by the river Abroñigal, nowadays covered by the M-30. It used to be a prosperous rural area with orchards, agriculture, gardens, gypsum quarries, bread and construction material industries. The part which is called nowadays Puente de Vallecas only originated in the 19th century as a suburb of the village of Vallecas. Its name comes from the bridge (*punte* is Spanish for bridge) that used to unite Vallecas with Madrid across the Abroñigal. The bridge (Puente de los Tres Ojos, demolished in 1980's) and the (royal) road that stretched as its continuation into Vallecas were used for transporting goods from Vallecas into Madrid and served as an entry point into the city from the East and South-East of Spain.

After the fall of the Madrid wall, Puente de Vallecas kept on expanding until, in 1931, it became the economic and social centre of the settlement where the city council was moved.

Before the Spanish Civil War (1936-1939) the industry of Vallecas was at its peak, supplying the capital city with raw and construction materials, baked goods, cereals and more: "The 1905 Report on the State of Industry in Madrid listed more than 70 facilities in the town and the bridge: among others, twelve bakeries, seven tile factories, industries for the construction and repair of transport, three plaster kilns, two cement factories and two more for chemical products."

The Civil War bombings produced heavy destruction in the town of Vallecas leaving scars in the urban tissue and in its industrial catalogue. Before the unification with Madrid some ceramic and food factories began to appear in order to repair the losses produced by the war.

Between 1949 and 1954 Madrid ingested all its surrounding municipalities in an urban sprawl that vastly increased the area of the city. In 1950 Vallecas was also annexed to Madrid during the same process, becoming the industrial periphery of the city where a large part of the working class was settling. After the annexation moment the municipality of Madrid attempted expropriations and rehousing in Vallecas (and other urban peripheries) with the goal of redeveloping those parts of the city. As a consequence, the rebellious character of the Vallecans surfaced through their strong resistance against the governmental plans. Even at present, Vallecas is known as a working-class neighbourhood, a "true rebel town with a fire that will burn for as long as it has to: until the fight for equality is over".

Segregation and inequality are still problems that Madrid's neighbourhoods suffer from until today. The capital city does not manage to meet the specific needs for its neighbourhoods, growth and new residents, nor to provide decent living conditions for everyone. Therefore, neighbourhood movements demanding rights and attention have been happening in Vallecas along with the advocacy of self-sufficiency as a form of protest and survival.

+ location

+ ageing

+ scale

+ built space

+ materials

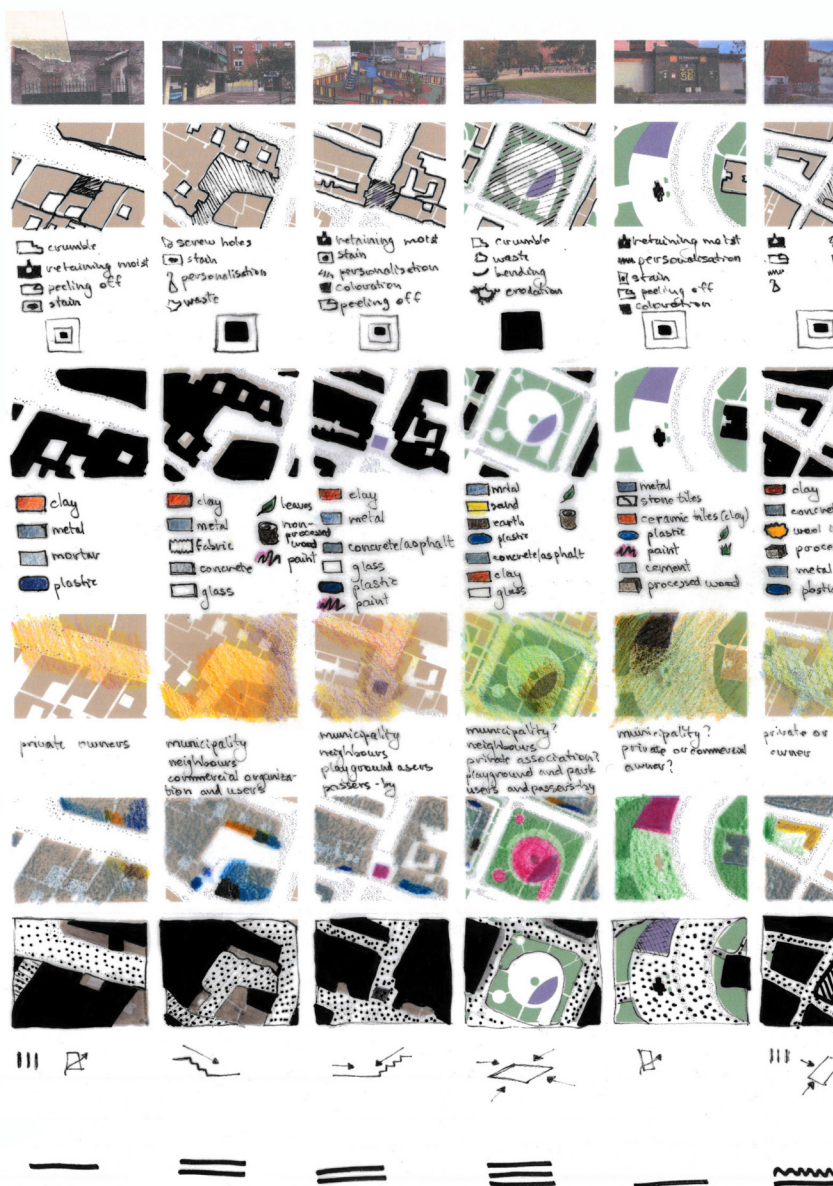
+ personally perceived safety

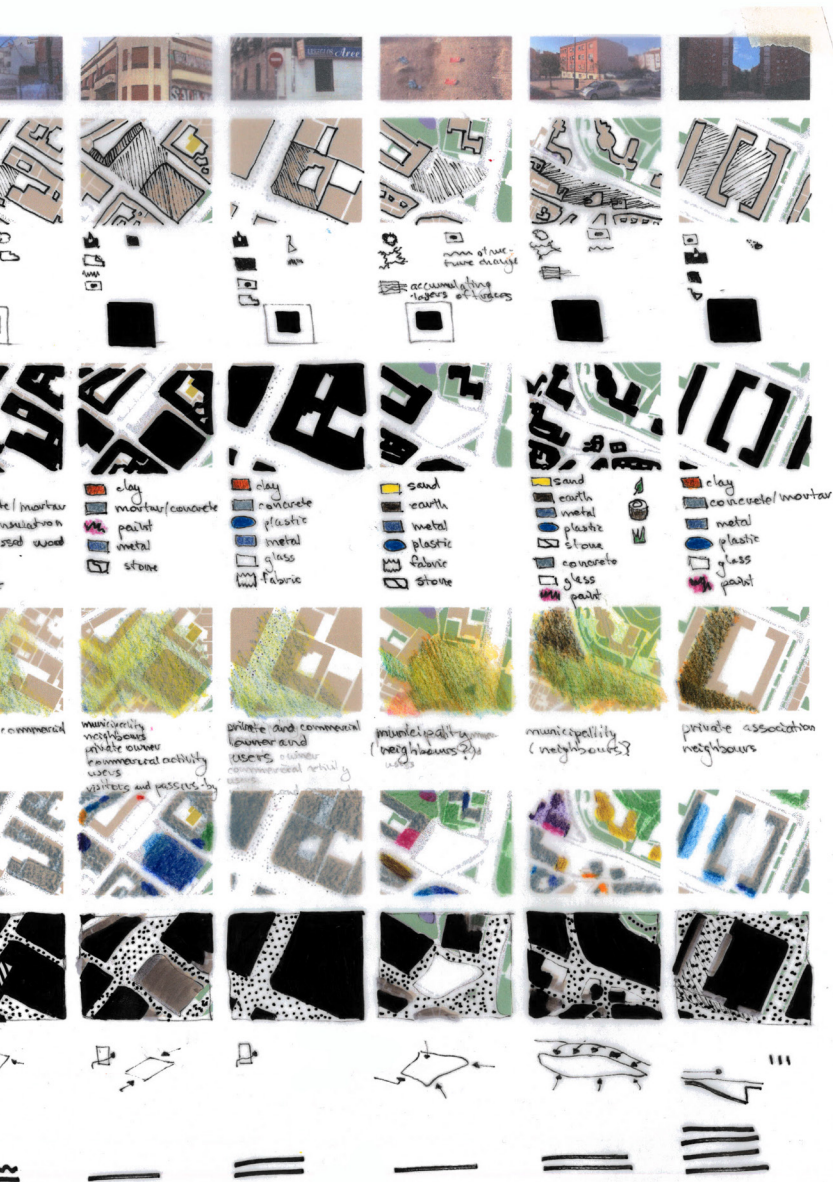
+ agents of care

+ program

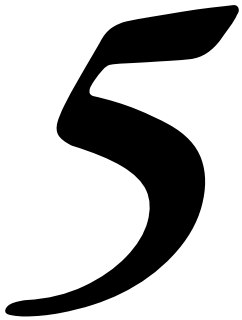
+ porosity

+ access





29. Matrix of analysis potential intervention sites in Numancia



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