

## Reviving the Forgotten Gasholders

*Harnessing the potential of heritage sites through complementary architectural gestures*



*11 June 1918. Female workers of the Gas Light and Coke Company serving tea on top of a gasometer in Bromley-by-Bow, east London. Hulton Archive*

*Nadia Antoniadis | 4703774  
Architectural Design Crossovers  
May 2023*

## **Abstract**

Throughout the course of time, there has been a progression starting from the preservation of buildings and sites, to the conservation of specific elements of these landmarks, and now shifting towards adaptive reuse where the goal is to maintain cultural heritage through values and attributes. According to Aldo Rossi, there is no guarantee of effective continuity, and it is crucial to understand the process of transformation and determine how to act in such situations (Rossi, 1982). While numerous industrial buildings have been repurposed and given new functions, it remains a subject of debate whether they have succeeded in conserving the identity and historical essence of the structures.

This thesis aims uncover the significant and possibly forgotten or overlooked layers of an architectural product to then synthesise and integrate them into a new narrative, using an interpretation of the concept of collage as a tactic in architecture. In exploring the concept of complementarity, the thesis will delve into the idea that the integration of contrasting elements or ideas can create a harmonious whole. Similarly, a collage brings together disparate fragments to form a cohesive composition.

Emphasizing the concept of complementarity, similar to a collage, architecture reveals evidence of time and its process of construction, a work of architecture contains accumulated history as it is lived and engaged rather than observed” (Shields, 2012). An architectural piece is “rarely experienced in its totality, [...] but as a series of partial views and synthesise experiences.” (Holl, Pallasmaa, & Perez-Gomez, 2006).

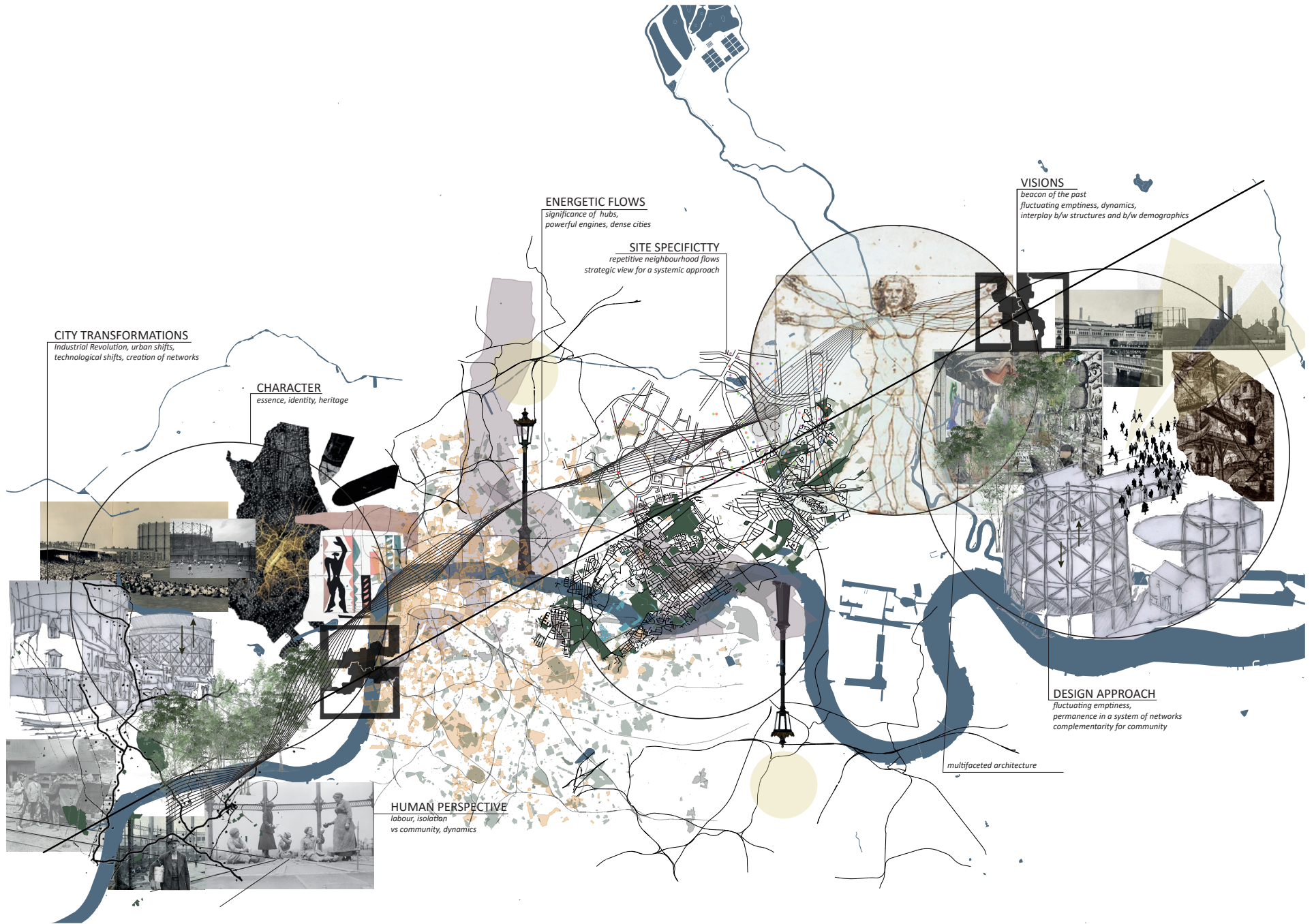
By embracing complementarity, architecture can establish a dynamic relationship between the existing context, the proposed interventions, and the emerging necessities, ensuring that the essence and significance of the original structure are upheld while allowing for meaningful adaptation and transformation. Therefore, the essay will explore concepts such as collage and the notion of complementarity in terms of research and design within an architectural framework.

### **Epigraph**

*“Why does rust frighten us so while the ruin is adorned with a reassuring character? [...] The ruin restores man to nature. Rust, on the other hand, confines him in the middle of his productions as if within a prison, a prison all the more terrible since he is its builder. In this context, the name of Russo’s photographic project is an invitation to reconsider these structures from an architectural heritage point of view, prompting the public to ponder the question: Are they ruin or rust?” (Picon, 2000)*

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**CITY TRANSFORMATIONS**  
Industrial Revolution, urban shifts,  
technological shifts, creation of networks

**CHARACTER**  
essence, identity, heritage

**ENERGETIC FLOWS**  
significance of hubs,  
powerful engines, dense cities

**SITE SPECIFICITY**  
repetitive neighbourhood flows  
strategic view for a systemic approach

**VISIONS**  
beacon of the past  
fluctuating emptiness, dynamics,  
interplay b/w structures and b/w demographics

**DESIGN APPROACH**  
fluctuating emptiness,  
permanence in a system of networks  
complementarity for community

**HUMAN PERSPECTIVE**  
labour, isolation  
vs community, dynamics

multifaceted architecture

## 1. PROLOGUE

## 1.1 Facination, Focus Point

In the bustling metropolis of London, despite its congestion, there is a myriad of empty spaces. This paradoxical reality is a characteristic of large, growing cities, where new structures continuously emerge on fresh sites to accommodate the expanding population, while existing spaces remain vacant and devoid of life, yet brimming with untapped potential.

Among these neglected areas lie industrial heritage sites, enclosing captivating structures that face the imminent threat of dismantlement. These sites possess inherent value for the city, holding untapped possibilities waiting to be explored. One particular fascination for me is the gasholders, with their fascinating framework that were composed of internal iron vessels which would ascend and descend according to the amount of gas they contained. In essence, they were space holders. Through these existing typologies, I intend to create space in the congested city of London by alluding to the aura of these structures, which is one of fluctuating emptiness.

Drawing inspiration from these typologies, the research delves into the exploration of conserving the identity of dormant structures while adapting them to meet the needs of contemporary society. Moreover, it aims to facilitate meaningful interactions between users and these revitalised yet forgotten spaces.

Therefore, the central inquiry that guides this investigation is as follows: in the pursuit of urban revitalisation, how can complementary architecture serve as a transformative mediator, enabling the revival of vacant heritage sites in a dense urban city while transcending their physicality, stimulating a collective reimagining of community, and embodying the essence of the city's evolving identity and values?

In order to obtain a comprehensive understanding of the project's direction, explanations of the components included within this research question are provided.



*Conceptual Collage | Merging Layers*

In the pursuit of urban revitalisation, how can complementary architecture serve as a ***transformative mediator***, enabling the revival of vacant heritage sites in a dense urban city while ***transcending their physicality***, stimulating a ***collective reimagining*** of community, and embodying the ***essence of the city***'s evolving identity and values?

#### *Transformative mediator*

A transformative mediator refers to the role of complementary architecture in facilitating transformative processes within a community or a given context. It acts as a catalyst or agent of change, capable of bringing about significant shifts in perceptions, interactions, and experiences by bridging the gap between the past and the present, fostering collaboration, and inspiring change within a community or context.

#### *Transcending their physicality*

Transcending physicality means to go beyond the physical aspect of the site and its mere restoration or functional use of the structures. It utilises the site as catalysts for broader transformations and experiences, surpassing their tangible form. It taps into the symbolic, cultural, and emotional dimensions of these sites to create a meaningful experience for the community.

#### *Collective reimagining of community*

To stimulate a collective reimagining of community can be defined as inspiring a shared and collaborative process of envisioning and shaping the future of the community. This collective reimagining goes beyond individual perceptions and seeks to create a vision that reflects the aspirations, values, and needs of the community as a whole. It involves fostering a sense of belonging and social cohesion, driven by the symbolic and cultural significance of the revived site.

#### *Embodying the essence*

As cities evolve and undergo transformations, their character may also shift. By embodying the essence of a city's evolving identity and values and encapsulating the intangible qualities that make a city and a site unique, the revitalisation of these industrial heritage sites should align with the cultural, social, and environmental dynamics of the area and resonate with the needs of a community to foster a sense of place and belonging.



## 1.2 Historic overview

By the end of the nineteenth century, the gas industry was well established and had expanded to almost all major towns of England, “using coal as its main raw material and with the provision of lighting as its main market” (Jenkins, 2006). Gas companies had therefore built the required structures, such as gasholders, retort houses, and station meters to support the gas distribution to public street lights and later to private consumers (Falkus, 1967). By then, the gasholders were so numerous that they gradually became part of the character of London.

By investigating London’s industrial past, recurring issues in the labour activities of this sector can be detected, particularly the “loss of consciousness of individual identity” (Maddaluno, 2020). Work in the industrial space not only isolated the worker but also set restrictions of understanding the procedures in its entirety, as there were limits workers could not surpass, and this is generally the “characteristic that is attributed to industrial work: a repetitive completion of task, limited in defining the boundaries of awareness of a totality of process” (Maddaluno, 2020).

From the broader societal perspective, during industrial times, the gas industry created many job opportunities for the residents of the country, and mainly for men. Women never truly had a place in the industry, and if they did, it was so minimal that it has hardly been documented. Men were dominant and women were given tasks such as “show[ing] off the benefits of cooking by gas in practical cookery exhibitions” (Jenkins, 2006). Following the First World War, women took on slightly more meaningful tasks but their title in the industrial sector remained minor. In any case, working in the gas industry was not a pleasurable task; it came with many consequences, such as “fatigue, alienation, subordination, repetition, [and] boredom” (Maddaluno, 2020).

As such, from a humanistic approach, industrial spaces were impersonal and non-inclusive, and gave no room for imagination.

Nevertheless, the Industrial Revolution had a significant impact on transforming rural areas into urban societies. Industries, such as gasworks, were placed in prime spots of the city for distribution purposes. Consequently, they became well integrated, their functions and accompanying structures therefore played a big role in social improvement, and they proved to benefit the city and its residents. Gasholders were thus the engines of the cities — they were the heart of the dynamic networks that gave life to their vicinities.

During the interwar period, the gas industry was confronted with a major competitor: electricity, which “took over most of the lighting load and began to compete also in the heating and cooking markets” (Jenkins, 2006). Soon later, in the 1960s, the shift from manufactured coal gas to natural gas took place, which was accompanied by a massive drop in revenue in the town gas industry, the bankruptcy of multiple businesses, and the termination of workers. Consequently, there was an abandonment of various industrial buildings and this led to the creation of voids in cities.



*Montford Place, near The Oval, Kennington (1953)*



*Montford Place, near The Oval, Kennington (2022)*

## 2. COLLAGE

In *Collage, Assemblage, and the Found Object*, Diane Waldman defines collage as “the original identity of the fragment or object and all of the history it brings with it; the new meaning it gains in association with other objects or elements; and the meaning it acquires as the result of its metamorphosis into a new entity.” (Waldman, 1992)

In *Collage City and the Reconquest of Time*, Rowe and Koetter suggest that an ideal “Collage City” (Rowe & Koetter, 1975) would be made up of fragments from other “utopias” (Pallasmaa, 2000) without any hierarchical evidence. Taking as an example Picasso’s *Bull’s Head*, this object was made “out of the handlebars and the bicycle seat [...] which everybody recognised as a bull’s head. Thus, a metamorphosis was completed” (Barr, 1946).

The principle of this example is that by upcycling various parts of one object it allowed them to take the form of another object; here the parts of the bicycle were recontextualised into a bull’s head. It did not change the fact that the pieces originated from a bicycle, it simply “re-cycl[ed] [the] meaning” (Rowe & Koetter, 1975) of its initial parts, but “the former function and value” (Rowe & Koetter, 1975) were not forgotten. If necessary, the bicycle parts can be returned to their initial use, “and so a double metamorphosis [would be] achieved.” (Barr, 1946). This three-dimensional collage therefore demonstrates that, such as the *Bull’s Head*, fragments of an urban environment can remain in their initial state, but if recontextualised or arranged in a different manner, this environment can adopt a different character altogether.



*Tête de taureau | Bull's Head 1942 by Pablo Picasso*

This chapter will study “collage” as a concept for research (2.1) by investigating the identity of the structures in question (2.1.A) and the relics they are accompanied by (2.2.B). Moreover, “collage” as a concept for design (2.2) will be investigated through multifaceted architecture (2.2.A) and how a structure can be the catalyst of the city (2.2.B).

## 2.1 Collage as a tool for research

### A. Identity Through Recollections

In the journal *Daidalos*, Anderson's essay makes a clear distinction between "memory through architecture" also referred to as "social memory" and "memory in architecture" (Anderson, 1995). The former relates to "architecture [as] serving the causes of memory in society" and the latter refers to "the operation of memory within the discipline of architecture itself" (Anderson, 1995). In this study, emphasis will be put on memory through architecture, given that the structures I will be investigating are currently vacant and are not necessarily communicated in the disciplinary memory of canonical architecture. From a heritage perspective, the intervention will respect the integrity of the site's past, its distinctiveness, and its values, so as not to overshadow the industrial identity of the structure. By keeping ties with its past narrative, the proposed vision will be strengthened and give a different understanding of the space while co-existing with its previous character.

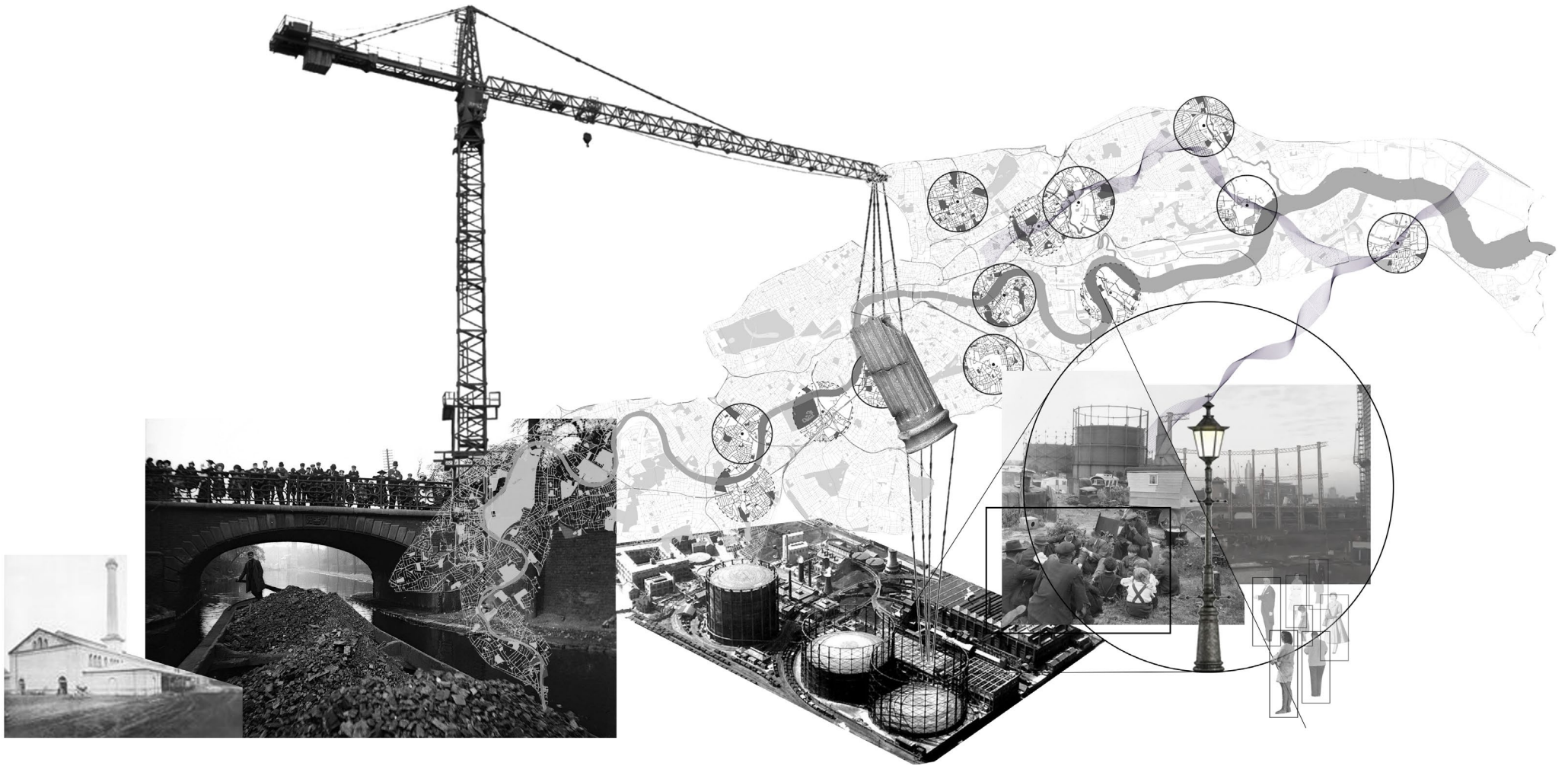
"No understanding of a site is conceivable without communal history, or conceivable with a substitution of history." (Forster, 1983). What the thesis wants to achieve is to bring forward the significance of the character associated to the past of the site without diving deeply into conserving the physical integrity of the structures; in other words, by studying archaeology without antiquity, the qualities of the site and structures within the site will be uncovered and displayed in its second life.

A specific building could be a landmark which people remember fondly, and which itself reminds us to never forget the past. Indeed, a monumental building still standing in a modern, faceless neighbourhood could serve as a beacon of the past — still beautiful and still culturally significant.

From this perspective, and considering the subject of this thesis, on the one hand, a structure may have negative connotations and painful memories of the past, but can be revitalised and transformed into something positive — a sort of renewal. Indeed, there are times where erasing moments from the past can be beneficial. On the other hand, maintaining the building and keeping its history alive as a reminder of what it once was, could also be the end goal of a building transformation.

As such, a landmark would ideally be conserved, with its past and history retained, but would be transformed and re-invigorated in line with the goals and desires of present day. The objective is that the architecture of the site remains readable through its underlying identity and values.

These crossovers therefore confirm the relevance of the collage concept in the research, considering that collage "enable[s] an archaeological density and a non-linear narrative through the juxtaposition of fragmented images deriving from irreconcilable origins. Collage invigorates the experience of tactility and time" (Pallasmaa, 2000). The way we encounter temporal and spatial conditions "cannot be grasped in a single intuition; it relies on a sequence of stages bringing together individual phenomena and the universal ground in a process that may be described as the restorative mapping and articulation of the world." (Vesely, 2004).



*Collage study | Significance of Identity, [re]connecting*

## B. Relics of the City: The Gasholders

In Gilles Clément's *Manifeste du Tiers Paysage*, the "délaissé" is described as a neglected terrain that was once exploited in the past by agriculture, industries, urbanism, tourism, etc. (Clément, 2004). As a gardener, garden designer, entomologist, and botanist, Gilles Clément has the ability to see nature as "an evolutionary process leading towards diversity and equivalence" (Luo & Havik, 2020). He uses the term "tiers paysage" [third landscape] which he defines as a disregarded space, taken over by nature which transformed into a diverse body of ecologies (Clément, 2004). The focus of this research engages with this particular set of spaces – spaces that are currently neglected, but through a different understanding and by implementing a suitable revival scheme can once again be given significance.

In these areas labelled as "délaissé", various structures, which are the result of technological advances of the past, are still present. On the industrial sites that this research focuses on, remnants of gasholders are still visible. Some may view these particular structures as derelict and lifeless but this thesis will aim to bring forward their value through complementarity.

Captured in his collage-making techniques, "[Le Corbusier's] artistic and architectural work, like that of the Cubists, experimented with themes of phenomenal transparency [and] ambiguity of figure and field" (Shields, 2012), indicating that an object should be open to more than one interpretation. Taking this into account and in view of the theme of the study, two lenses can be distinguished: the meaning of a space with its accompanying structures and the multiplicity of its design(s).

Spaces with a historical past that ties to the community carry important meaning, "specifically ones that have been shaped both physically and culturally by a distinct use" (Langhorst, 2004). Taking more specifically the spaces of analysis, which are the sites where gasholders now stand empty. The relics of the sites are the structures of the gasholders themselves. These gasholders can be classified as underground or above ground and due to inactivity or various redevelopment projects they may or may not still have their cast iron columns, frames or tanks. These relics are part of the character of the city and have the potential to be understood through various perspectives; from their multiple transformation possibilities, to the programs they can adopt, and to the feelings they can convey.



*Nature morte à la pile d'assiettes | Still Life with a Stack of Plates, 1920 by Le Corbusier*

Taking as an example *Still Life with a Stack of Plates*, Le Corbusier chooses to place ordinary individual objects in a context of advanced art. The combination of these pure shapes and their accompanying colours creates a pleasing arrangement, worthy of attention.

## 2.2 Collage as a tool for design

### A. Multifaceted Architecture

In the context of spatial analysis through collage, it is crucial to acknowledge the evolution of this technique, particularly by highlighting the contributions of Cubist artists. The Cubists, known for their ability to depict elements of everyday life “through abstraction, material juxtapositions, and fragmentation and synthesis of form,” effectively captured the spatial and material qualities of their subjects (Shields, 2012). Architecture cannot be seen as a singular entity, it “is not constituted of buildings or sites but arises from the studied relationships of the two” (Burns, 1991). The expanded role of architecture is to read the complexities of a territory (Sheppard, 2012), starting with “discover[ing] its latent qualities or potential” (Burns, 1991).

The research proposal revolves around etic and emic approaches, where the “etic account is from the point of view of an observer who is outside the culture or activity in question,” (Lucas, 2016) meaning that the research will be part of a larger study of objective systems, analysing the flows, specifics, and challenges, “whereas the emic account is produced from within a culture” (Lucas, 2016) focusing on the individuals, their mobilities, their needs and interests, and the communities they are part of.

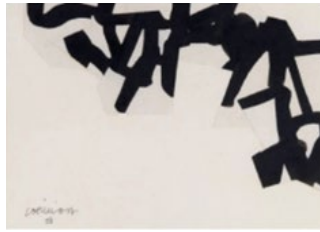
In order to integrate this investigation into a systematic framework, it is essential to identify the recurring urban conditions in the vicinity of the gasholders. This process will serve to strengthen their presence and establish strategies for revitalising their value.

*“By multiplying the number of views taken of an object in order to acquire fuller cognizance of it, Cubism at the same time introduced a factor of relativity. By superimposing non-concordant, discontinuous images, it stripped the object of its opacity, its density, rendering it at once transparent and permeable to the medium which surrounds it, and with which it then engages in an interplay of unstable, shifting relations.” (Besset, 1987)*

With the above in mind, if a strategy is devised to synthesise the “recognition of spatial as well as temporal conditions and the value of process,” (Shields, 2012) independently from a building typology on a specific site, the object in question will be able to play different roles in a web of networks taking part in an urban environment.

The repurposed gasholder spaces necessitate a versatile approach to architecture, accommodating multifaceted functions that can adapt and serve varying purposes. These spaces will encompass flexible functionalities that can adjust and cater to specific roles, while also allowing for the emergence of new needs within their surroundings. The design of the building will have the capacity for expansion, enabling it to grow and evolve alongside the evolving demands of its environment.





*Untitled Collage, 1966 by Eduardo Chillida*



*Gasteiz, 1975 by Eduardo Chillida*



*Los Fueros in Vitoria-Gasteiz, 1979 by Eduardo Chillida*

In the design proposal, the industrial identity of the site will remain distinguishable. There will be “no attempt to gloss over the unpleasantness of former land uses; on the contrary: they [will be] incorporated into the new designs as highly visible, even iconic, and maintain a visible degree of historic continuity.” (Langhorst, 2004).

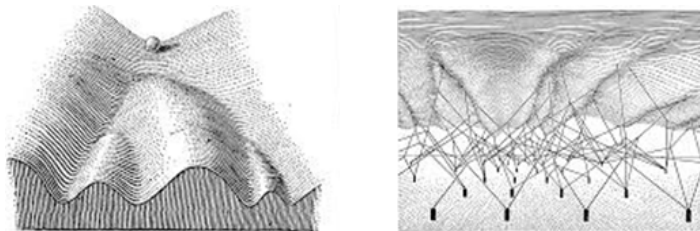
The proposed intervention will honour the character of the site by preserving its underlying values, rather than seeking to mimic its physical identity. The significance of the vacant structures will be retained in the architectural roles assumed by the interventions, whether expressed through visible or abstract, tangible or intangible forms.

This perception of emptiness identifies with the plaza in Vitoria-Gasteiz by Eduardo Chillida and Luis Peña Ganchegui, where the space “permit[s] the human occupation and full, bodily experience and perception of the void. Subtleties of scale, perceived boundaries and spatial overlap offer potentialities for multivalent experience within the plaza.” (Shields, 2012). Chillida refined this “ambiguity of boundaries” (Shields, 2012) through collages and three-dimensional alabaster sculptures,” which do not attempt to confine, “delimit or define [space]” (Selz, 1986), rather they try to shape the user’s experience.

## B. Catalyst of the City: The Gasholders

Waddington's diagram offers a depiction of his "epigenetic landscape" where the path of the marble represents "the development [...] from an early undifferentiated state to a mature differentiated state" (Fusco, Carrer, & Serrelli, 2014). The "series of depressions [of the bottom of the slope represent] alternative differentiated states of the system. The particular shape chosen for the slope also conveys other ideas about development." As the marble moves gradually down the slope, there is a "progressive reduction of the number of possible final differentiating states [which suggests] the progressive restriction of competence and potency of the system that accompanies differentiation." (Fusco, Carrer, & Serrelli, 2014).

Waddington also portrays the view underneath the landscape, as the functional networks that are controlled by genes, "suggesting a territory thickened by forces, which are dynamic, responsive, and networked to each other." (Sheppard, 2012). This network "directly determines the shape of the landscape, i.e. of the dynamic of the development." (Fusco, Carrer, & Serrelli, 2014)



*Epigenetic Landscape, seen from above and below,  
Conrad Waddington, 1957*

The metaphor of Waddington's epigenetic landscape can be extended to urban development. In this thesis, the concepts illustrated in the diagram will be utilised by isolating distinct forces, such as the identity of the selected site typologies, the surrounding networks, and the systems they are or can be part of. By doing so, prominent visions will be proposed to enable these structures to serve as catalysts within the community. This means that they will actively stimulate additional dynamics within their urban environment.

"The principle of the (so-called) master plan is to design the space of a terrain over an extended time; there must exist a similar, perhaps paradoxical, potential for plotting time of a terrain over space, which would differ from an architectural narrative or promenade by specifically accounting for growth and change in time." (Burns, 1991)

The aim of this thesis is to breathe new life into a neglected space and reintegrate the inherent significance of its structures into the fabric of the city. By assigning them adaptable roles that align with existing networks in the neighbourhood and its surroundings, their presence in the urban environment can be ensured both now and in the future.

### **3. PRESUMPTION AND SCOPE**

This project therefore suggests that the most fitting proposal is to offer an open-endedness to the design. As proposed by Sébastien Marot in *Sub-Urbanism and the Art of Memory*, it would be beneficial to “recognise design as a temporal infrastructure, to apply an ‘active regard for the memory of the site,’ (Marot, 2003) and to understand both the site and the design as a process.” (Langhorst, 2004). In this research, the scenario will take place in a gasworks site, in London, and the interaction between the multiple gasholders could activate these new dynamics the project is trying to achieve.

The overarching objective of this thesis is to enhance a rich interplay among individuals, timelines encompassing both the past and future, and the urban fabric itself. This will be achieved by introducing a comprehensive package of community-driven activities aimed at stimulating vibrant urban dynamics. By formulating a strategy rooted in recurring urban conditions and shared characteristics, independent of specific building typologies, a strategic approach can be employed to leverage the existing structures on site. This approach will enable these structures to serve as integral elements within the framework, supporting its implementation and contributing to the overall revitalization effort.

Collage-inspired architecture has the ability to generate diverse and immersive spatial and material experiences that offer a range of possibilities for the inhabitants (Shields, 2012). This approach, coupled with complementary architecture and a multifaceted perspective, will form the foundation of this thesis.

It aims to construct a narrative that can be flexibly adapted to suit the unique context of London's remaining gasholders and other neglected industrial spaces, as well as to complement the revitalisation of industrial remnants in any growing city. By leveraging these approaches, the project seeks to unlock the latent potential of these structures and weave them into the fabric of the city, fostering a harmonious blend of old and new, to reinvigorate forgotten spaces and infuse them with renewed vitality.

## 4. SITE



#### 4.1 Areas of Investigation

To initiate the search for potential site investigations, a comprehensive map at a city-wide scale was created, indicating the various gasholders in London. This includes existing gasholders, those that have undergone redevelopment, as well as those that have been dismantled. In order to identify the most suitable site for redevelopment with the highest potential for revitalisation, several criteria were examined.

The study considered the presence of Conservation Areas, which are designated by the local authority due to their special architectural and historical significance. Of particular interest were the gasholder structures located within these conservation areas. Their inclusion in the redevelopment plans would not only contribute to the overall narrative of the city's identity but also enhance its aura and sense of place tied to cultural and industrial heritage. Additionally, the designation of English Heritage Listed Buildings played a crucial role in the decision-making process, ensuring that any future modifications would not diminish the site's importance or historical value.

An important factor considered was the Green Spaces Study, which aimed to comprehensively analyse the surrounding green areas and trails. The primary objective was to assess their proximity and logical connection to the gas holder sites, ensuring that visitors to the redeveloped area would have convenient access to green spaces. The study also examined the feasibility of establishing a dynamic system that harmoniously integrates these green areas. By incorporating green spaces into the redevelopment plans, the project would not only enhance the site's visual appeal but also offer significant recreational and ecological advantages to the local community.

The identification of Brownfields, which refer to previously developed industrial lands that are currently vacant and available for development, was another significant aspect of the evaluation process. Pinpointing these specific locations allowed for a more targeted approach to redevelopment, which seeks to maximise the utilisation of existing vacant fields while simultaneously justifying potential environmental impacts associated with utilising new land. By revitalising these brownfields, the project aimed to transform them from dead spaces into vibrant, productive areas.

Furthermore, the assessment considered Strategic Industrial Locations, which are areas that can fully support industrial activities. It was essential to ensure that any proposed development within or adjacent to these locations would not compromise their integrity or effectiveness in accommodating industrial purposes.

The Opportunity Areas identified in the Mayor's London Plan were considered. These key locations, characterised by significant brownfield land and ample development potential, presented excellent opportunities for transformation. By taking advantage of on these areas, the project could leverage their capacity for development, contributing to the overall urban growth and progress of the city.

Another crucial consideration was the analysis of Density and Dynamics, which involved examining the relationship between population density and the availability of amenities within their respective areas. By conducting this analysis, the focus was on identifying a site where existing dynamics could be amplified through an interplay of people, functions, and movement.

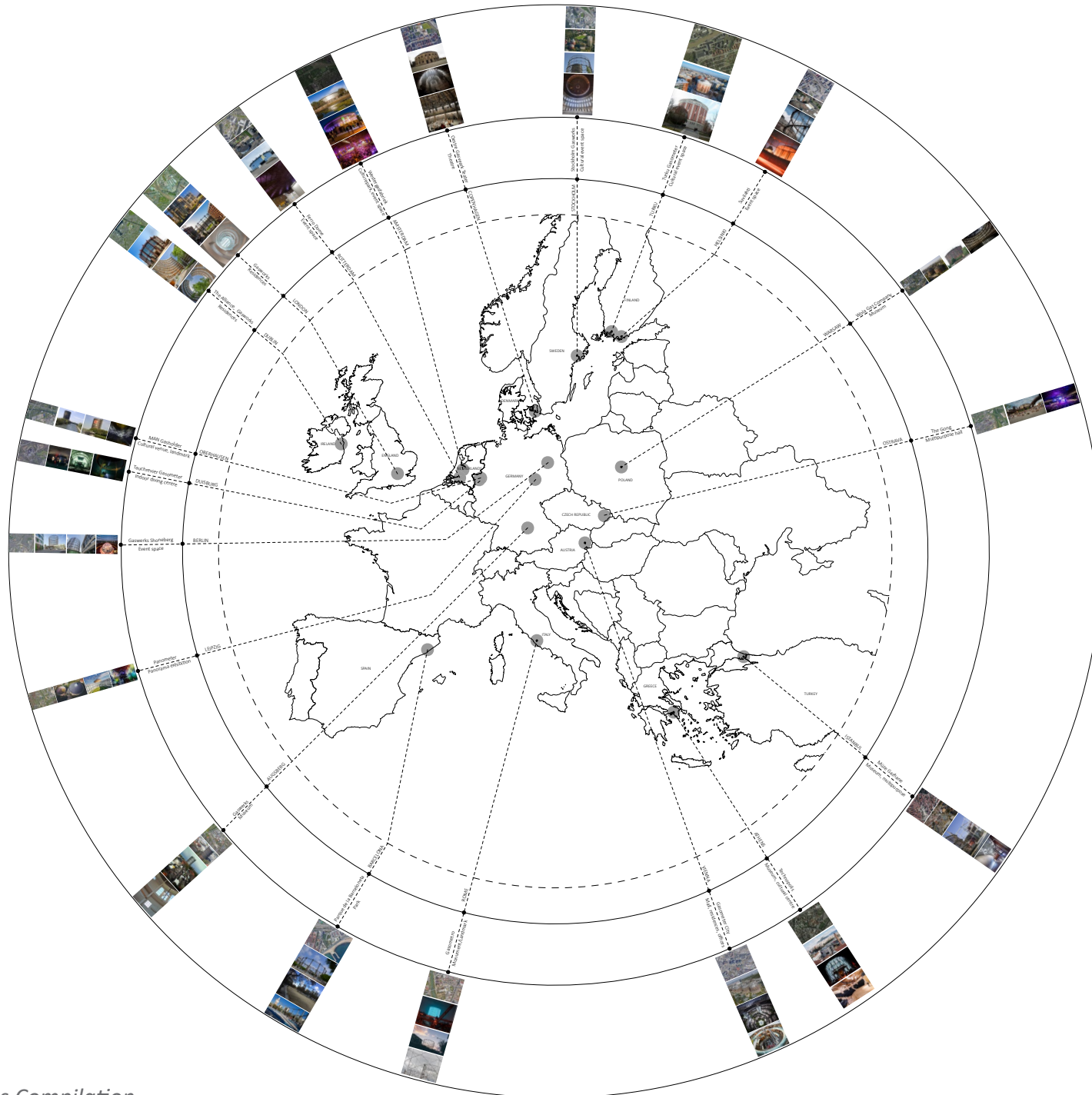
The objective was to select a location that could benefit from the synergy created by a dense population and a well-integrated mix of amenities. By understanding the existing dynamics within a community, such as the presence of commercial programs, transportation hubs, educational institutions, and recreational facilities, the redevelopment project aimed to enhance and create on these existing elements.

Essential data pertaining to key elements of the city was also gathered, including information on waterways and railway networks. These broader factors play a crucial role in site selection for redevelopment purposes. The presence of waterways adds an appealing aspect to the site, particularly considering its significance in the historical location of gasholder sites. Given that coal transportation occurred via rivers and canals, it was expected to find a waterbody adjacent to the site. This attractive feature will offer numerous advantages, such as the potential to attract visitors, support sustainability initiatives like urban cooling strategies, or even serve as a transportation option. Additionally, it is imperative to identify the railway networks and other transportation systems to ensure convenient accessibility within the site.

Engaging in on-site activities like documenting through various recording media such as photographs, videos, and audios, as well as taking notes, sketches, and conducting interviews, proved to be immensely valuable in refining my search for investigation sites.

By carefully evaluating and eliminating sites of investigation based on their compatibility with the desired outcomes, the site with the greatest potential for revival and redevelopment could be identified. This comprehensive approach ensured that the selected site would not only honour its heritage and significance but also integrate seamlessly into the surrounding environment while fostering economic growth and sustainable development for the benefit of the community.





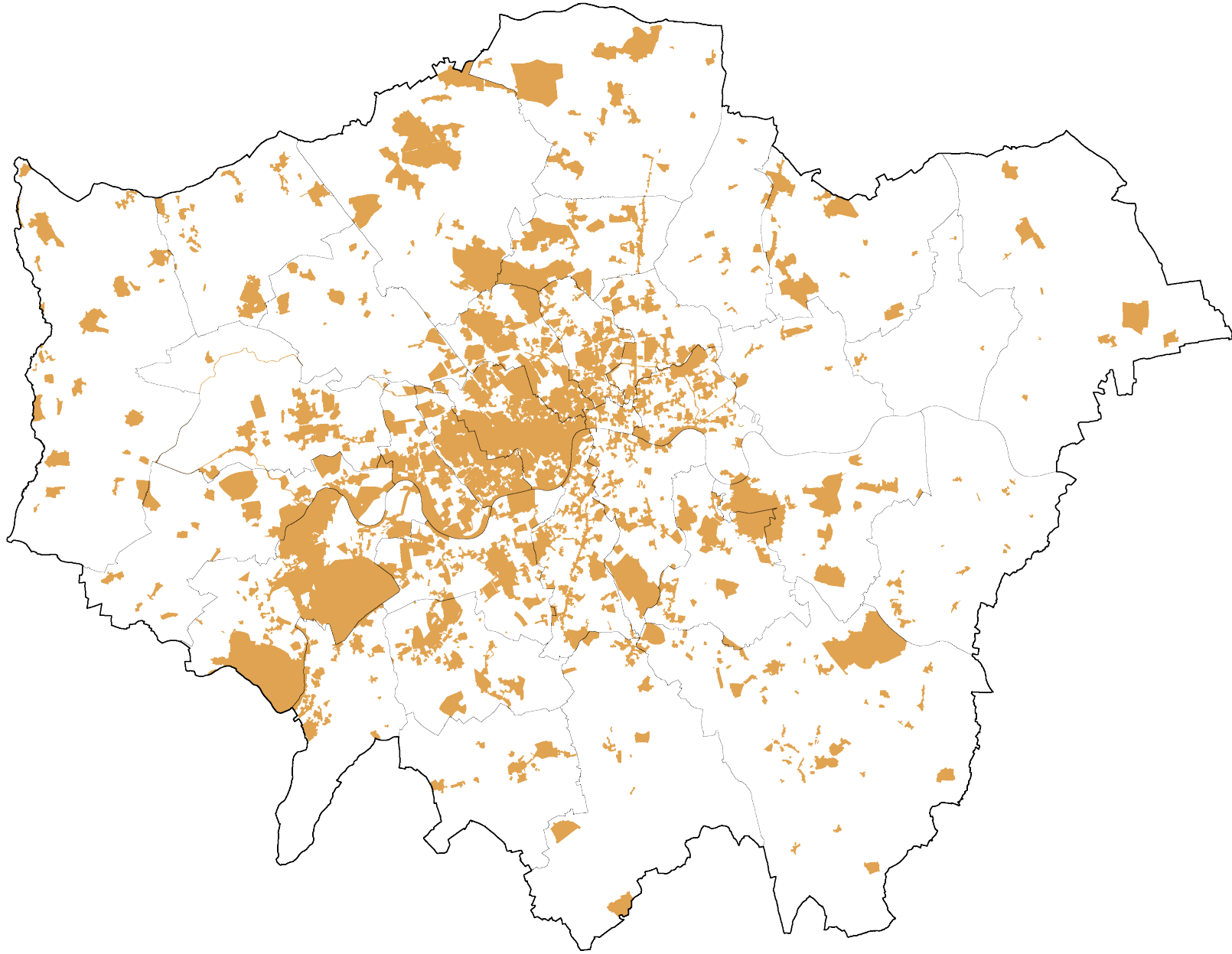


*Location map of existing, redeveloped and dismantled gasholders*



*Location map of existing gasholders*

















	Albert Road Gas Works (Barnet Gasworks) New Barnet	Beckton Gas Works	Bromley-by-Bow Holder Station	Crayford Holder Station (London Road Gas Works)	Haggerston Gasworks (Hackney, Bethnal Green, Tower Hamlets)	Imperial Gas Works (Fulham)	Kennington (Oval) Gas Holder Station (Berkeley Gp)	Leigh Road Gas Holder	Motspur Park (Worcester Park) Gas Holders	Old Kent Road Gas Works	St. Mary Cray Gas Holder Orpington Gas Holder (in Bromley)	Rotherhithe Station	Yarnton Way Gas Works (Belvedere)
Structure	<ul style="list-style-type: none"> <li>1 frame (with crown)</li> <li>A Cutler patent guide frame gasholder in a below ground tanks was still present on site in 2018 although decommissioned. Some 20th C brick buildings and modern gas infrastructure are present on site.</li> </ul>	<p>NOT SURE IF A STRUCTURE REMAINS 1 or 2 possible present frames? + 4 flat areas below ground?</p> <p>OTHER REMAINS: The gasworks had its own pier for loading coal. Remains: jetties on water rotting away</p> <p>some modern gas infrastructure. The workers cottages on Winsor Terrace and the Entrance gates still survive.</p>	<p>7 column guided skeletons present (Grade II) with crown</p> <p>all below ground tanks</p>	<p>1 frame belowground with crown + 1 crown only (with minimal to no framing?) - 2/3GH</p> <p>OTHER REMAINS: A whitewashed red brick building, parts of the boundary wall and two gasholders survived in 2018.</p>	<p>2 skeletons with crown + 2 crowns no frame below ground tanks</p> <p>No5 (big) No2 NOT LISTED</p>	<p>1 small skeleton with crown + 1 crown without skeleton + 1 dismantled belowground showing "dumping" (cone of earth), + 1 crown removed with exposed trusses</p>	<p>3 frames with crown + 1 crown no frame (maybe spiral) below ground</p> <p>flyng lift, column guided GH No.1 is Grade II</p> <p>There were five GH operating before WWII but only two were still operational after the war, these were (No.1 and No.3), but were all eventually brought back into use. The early gasholders (No&amp;No5) have the symbol of the phoenix on their columns (because purchased by Phoenix Gas Company in 1847). Vested in the SEGB in 1949. No.3 gasholder was demolished after 1987</p>	<p>1 frame with crown below ground tank</p> <p>2 frames present with crowns, above ground</p>	<p>1 crown below ground tank with frame + 1 flat area delimitation (no structure traces, no digging)</p> <p>column guided framing</p>	<p>2 aboveground gasholders one with frames, one without (because it was spiral) + 1 dismantled (not sure about tank)</p> <p>No5: spiral guided No4: frame guided No3 cutler patent frame guided (dismantled)</p> <p>OTHER REMAINS: modern regional office</p>	<p>1 frames with crown, below ground</p>	<p>2 frames visible, with crown, above ground</p>	
Setting	<ul style="list-style-type: none"> <li>dead space</li> <li>greenery</li> <li>water/bodies</li> <li>private/public space</li> </ul> <p>Greenery parking spaces</p>	<ul style="list-style-type: none"> <li>dead contaminated space</li> <li>River Thames</li> <li>railway tracks</li> </ul>	<p>round waterbody greenery</p>	<p>Lots of open green space</p>	<p>Busy area with a lot of amenities. Might make the space overwhelming if another venue is added</p>	<p>dead space possibility for parking</p>	<p>Kennington Park parking potential</p>	<p>Greenery River Roding</p> <p>near beckton gas works</p>	<p>Green space, organised (sports)</p>	<p>dead space (brownfield+ paved)</p>	<p>paved area river cray</p>	<p>field Surrey Water parking potential</p>	<p>dead brownfield</p>
Surrounding programs	<ul style="list-style-type: none"> <li>assembly</li> <li>commercial</li> <li>institutional</li> <li>residential</li> </ul>	<p>Assembly</p> <ul style="list-style-type: none"> <li>Park, playground</li> <li>Football field</li> <li>Gym</li> <li>Sports centre</li> <li>Bars, restaurants</li> </ul> <p>Commercial</p> <ul style="list-style-type: none"> <li>Supermarket</li> <li>Toy store</li> <li>clothing stores</li> <li>Restaurant</li> </ul> <p>Industrial</p> <ul style="list-style-type: none"> <li>Docks/Light Railway Ltd</li> <li>Delivery offices</li> </ul> <p>Accountant</p> <ul style="list-style-type: none"> <li>Contracting companies</li> </ul> <p>Industrial</p> <ul style="list-style-type: none"> <li>Cadent Gas Company (distribution of nat gas)</li> </ul> <p>Institutional</p> <ul style="list-style-type: none"> <li>Tutoring school</li> <li>Jewish community school</li> <li>Primary/Nursery</li> </ul> <p>Residential</p>	<p>Commercial</p> <ul style="list-style-type: none"> <li>Tesco</li> <li>Supermarket</li> <li>Toy store</li> <li>clothing stores</li> <li>Restaurant</li> </ul> <p>Industrial</p> <ul style="list-style-type: none"> <li>Docks/Light Railway Ltd</li> <li>Delivery offices</li> </ul> <p>Accountant</p> <ul style="list-style-type: none"> <li>Contracting companies</li> </ul> <p>Industrial</p> <ul style="list-style-type: none"> <li>Cadent Gas Company (distribution of nat gas)</li> </ul> <p>Institutional</p> <ul style="list-style-type: none"> <li>Tutoring school</li> <li>Jewish community school</li> <li>Primary/Nursery</li> </ul> <p>Residential</p>	<p>Residential area for a community. Very personal</p> <p>Residential mostly</p> <p>Assembly</p> <ul style="list-style-type: none"> <li>large green park (Shenstone Park)</li> <li>village hall (gathering space for school)</li> <li>tennis club (fields)</li> </ul> <p>Institutional</p> <ul style="list-style-type: none"> <li>school</li> <li>church hall</li> </ul>	<p>Assembly</p> <ul style="list-style-type: none"> <li>Art gallery</li> <li>Pub/Bar</li> <li>2 event venues</li> <li>Garden</li> </ul> <p>Commercial</p> <ul style="list-style-type: none"> <li>Supermarket</li> <li>General store</li> <li>Pharmacy</li> </ul> <p>Institutional</p> <ul style="list-style-type: none"> <li>Offices</li> <li>Post Office</li> </ul> <p>Residential</p>	<p>Assembly</p> <ul style="list-style-type: none"> <li>Art gallery</li> <li>Stadium</li> <li>Football field</li> <li>Pub/Bar</li> <li>Kennington Park</li> </ul> <p>Commercial</p> <ul style="list-style-type: none"> <li>Supermarket</li> <li>General store</li> </ul> <p>Institutional</p> <ul style="list-style-type: none"> <li>Highschool</li> <li>Offices</li> </ul> <p>Residential</p> <ul style="list-style-type: none"> <li>Primary School</li> <li>Office</li> <li>Gin distillery</li> </ul>	<p>Commercial</p> <ul style="list-style-type: none"> <li>hair salon</li> <li>building material store</li> <li>train depot (store trains)</li> <li>Self storage facility</li> <li>contractors</li> <li>warehouse</li> <li>engineering company</li> <li>construction services (east)</li> <li>Church</li> </ul> <p>Residential (all of west side)</p>	<p>Assembly</p> <ul style="list-style-type: none"> <li>Football fields</li> <li>Basketball court</li> <li>Kennington Park</li> </ul> <p>Commercial</p> <ul style="list-style-type: none"> <li>Kitchen supplies</li> </ul> <p>Industrial</p> <ul style="list-style-type: none"> <li>Supermarket</li> <li>Reuse and Recycling Centre</li> <li>Electric Utility centre</li> <li>Waste Management Facility</li> </ul> <p>Institutional</p> <ul style="list-style-type: none"> <li>2 primary schools</li> <li>Churches</li> <li>2 Primary Schools</li> </ul> <p>Residential</p> <ul style="list-style-type: none"> <li>their green space</li> </ul>	<p>Assembly</p> <ul style="list-style-type: none"> <li>Small café &amp; small brewery</li> <li>few small restaurants</li> <li>4 supermarkets</li> <li>stores construction (flooring, tile,electronics, kitchen, plumbing)</li> </ul> <p>Commercial</p> <ul style="list-style-type: none"> <li>Reuse and Recycling Centre</li> <li>Electric Utility centre</li> <li>Waste Management Facility</li> </ul> <p>Institutional</p> <ul style="list-style-type: none"> <li>2 primary schools</li> <li>church</li> </ul> <p>Residential</p> <ul style="list-style-type: none"> <li>SGN offices</li> <li>SGN Depot</li> <li>SGN Workshop</li> </ul>	<p>Assembly</p> <ul style="list-style-type: none"> <li>park</li> <li>golf course</li> <li>starbucks café</li> <li>few restaurants</li> <li>trampoline park indoor</li> <li>small village hall (for community events)</li> </ul> <p>Commercial</p> <ul style="list-style-type: none"> <li>few small restaurants</li> <li>4 supermarkets</li> <li>stores construction (flooring, tile,electronics, kitchen, plumbing)</li> </ul> <p>Industrial</p> <ul style="list-style-type: none"> <li>Supermarket</li> <li>Reuse and Recycling Centre</li> <li>Electric Utility centre</li> <li>Waste Management Facility</li> </ul> <p>Institutional</p> <ul style="list-style-type: none"> <li>2 primary schools</li> <li>church</li> </ul> <p>Residential</p> <ul style="list-style-type: none"> <li>SGN offices</li> <li>SGN Depot</li> <li>SGN Workshop</li> </ul>	<p>Residential surrounding gasholder</p> <p>Assembly</p> <ul style="list-style-type: none"> <li>Bacon's community sports centre (College Function &amp; Event Hall Football club/terain Tennis court)</li> <li>Event Venue (Printworks London, Broadwick/Klive event management company)</li> <li>Bow Arts Studio</li> <li>Fishing pier</li> <li>Parks</li> </ul> <p>Commercial by the dock</p> <ul style="list-style-type: none"> <li>Cafe, Restaurant</li> <li>Decathlon Sports Store</li> <li>Alfred Salter Primary School</li> <li>Bacon's College</li> <li>Canada Water Library</li> </ul>	<p>Commercial related to industrial sector</p> <ul style="list-style-type: none"> <li>construction accessories</li> <li>plumbing</li> <li>metals</li> <li>Industrial</li> <li>car service</li> <li>industria equipment supplier</li> <li>construction company</li> <li>food supplier</li> <li>school + facilities sports, green space)</li> <li>Church</li> <li>pharmacy</li> <li>supermarket</li> <li>consultant offices</li> <li>Residential (east)</li> </ul>	
Amenities around (good for community)	<ul style="list-style-type: none"> <li>river</li> <li>rail/public transp</li> <li>roads</li> </ul>	<p>road, bus</p> <p>walk not easy</p>	<p>underground network (Barking or Plaistow) + bus Road</p> <p>not easy to get to</p>	<p>Road, bus</p> <p>Rail (crayford) + bus</p> <p>Underground (Woolwich) + bus</p>	<p>Road, rail</p> <p>Rail network, bus</p> <p>Regent's canal</p>	<p>Underground network (Imperial whard)</p>	<p>Road, rail</p> <p>Rail network, bus</p>	<p>Underground network (east ham)</p>	<p>rail network (Worcester Park)+walk Bus</p>	<p>Road, bus</p>	<p>rail network</p> <p>St Mary Cray + walk Orpington + bus</p>	<p>Road, rail</p> <p>Rail network, bus</p> <p>Thames River</p>	<p>Rail network (Belvedere) Road</p>
Movements (+ accessibility)	<ul style="list-style-type: none"> <li>river</li> <li>rail/public transp</li> <li>roads</li> </ul>	<p>road, bus</p> <p>walk not easy</p>	<p>not easy to get to</p>	<p>Road, bus</p> <p>Rail (crayford) + bus</p> <p>Underground (Woolwich) + bus</p>	<p>Road, rail</p> <p>Rail network, bus</p> <p>Regent's canal</p>	<p>Underground network (Imperial whard)</p>	<p>Road, rail</p> <p>Rail network, bus</p>	<p>Underground network (east ham)</p>	<p>rail network (Worcester Park)+walk Bus</p>	<p>Road, bus</p>	<p>rail network</p> <p>St Mary Cray + walk Orpington + bus</p>	<p>Road, rail</p> <p>Rail network, bus</p> <p>Thames River</p>	<p>Rail network (Belvedere) Road</p>
Coordinates	<p>51.653688537587705, -0.17227492560199803</p>	<p>51.51394183881501, -0.07794401999716147</p>	<p>51.5250532397, -0.00357402176827</p>	<p>51.4534954148, 0.16638259522</p>	<p>51.533437678423205, -0.0604092917273984</p>	<p>51.4772014694, -0.186421286929</p>	<p>51.485631035415324, -0.1149322462319321</p>	<p>51.54112472151783, -0.06480400119278792</p>	<p>51.3902599668, -0.240912312467</p>	<p>51.482239, -0.059760</p>	<p>51.3983790523, 0.11196355185</p>	<p>51.50252675758361, -0.04803174636269104</p>	<p>51.493435988, 0.14824527006</p>
Present/Features	<ul style="list-style-type: none"> <li>at risk?</li> <li>redevelopment plans?</li> </ul>	<p>AT RISK OF ENTIRE REMOVAL OS STRUCTURE</p> <p>Redevelopment schemes. 539 residential units (13 buildings, 4-7 storeys) + retail/commercial spaces+community space+pedestrian routes+parking (overdevelopment of the site)</p> <p>https://publicaccess.barnet.gov.uk/online- applications/applicationDetails.do?activeTab=summary&amp;keyVal=2V MN36109300</p> <p>https://www.theresavilliers.co.uk/news/high-rise-blocks-new-barnet-victoria-quarter-are-betrayal</p>	<p>https://www.ddd-history.org.uk/beckton/index.htm1</p> <p>https://weeklytales.com/articles/beckton-alps</p> <p>https://boitanancystry.uk/weebly.com/beckton-london.html</p> <p>Beckton is ethnically diverse, with large numbers of single people, lone parents and students</p>	<p>All are listed Grade II. Not at risk. No redevelopment scheme on site</p>	<p>Is currently being demolished. To be replaced with 14 warehouses</p> <p>https://www.yourlocalguardian.co.uk/news/19858790.croydon-gasworks-site-pulled/</p> <p>https://www.mylondon.news/news/south-london-news/south-london-skyline-change-forever-22248637</p>	<p>positive contribution to the character or appearance of the Regent's Canal Conservation Area and should be preserved"</p> <p>http://friendsofregentcanal.org/features/property-devt/Bethnal-Green-gasholders/plansapp/docs/Marian-Place-Gas-Works-Report.pdf</p> <p>Plan 2: housing inside both holders + 2 more cylindrical towers housing</p> <p>https://www.architectsjournal.co.uk/news/rshp-gets-consent-east-end-gas-holders</p>	<p>Redevelopment plans</p> <p>1,800 new homes and 100,000 sq ft of commercial space</p> <p>https://www.plowmanaven.co.uk/projects/king-owned-by-SGN</p> <p>Berkeley Group: tall buildings, 1250 apts mixed and affordable + public space 1hecare</p>	<p>3 gasholders dismantled large gasholder kept for housing inside</p> <p>Oval Village</p> <p>https://www.ovalvillagecommunity.co.uk</p> <p>Assumed not at risk. No redevelopment plans found</p> <p>building homes, no info about status of gasholders</p> <p>land owned by SGN. Corke's Meadow has been urbanised: permanent housing built</p> <p>Old Kent Road area gasholder not included in this doc</p> <p>https://consultations.southwark.gov.uk/corporate-strategy/okraapdec20/</p>	<p>No dismantling</p> <p>good redevelopment plan with 60% to 40% market/ affordable split</p> <p>1 dismantled, others at risk.</p>	<p>At risk of dismantling structure; develop into residential space</p> <p>40 dwellings for social rent</p> <p>39 dwellings for discount market rent</p> <p>198 private dwellings</p>	<p>Assumed not at risk. No redevelopment plans found</p>		

Comparative matrix of sites that include apparent gasholder structures (portion)  
This matrix shows constraints and parameters I set during the data collection phase in order to settle upon three sites that will be further investigated.  
The main classifications are structure, setting, surrounding programs, and movement. Based on these categories, the sites with the highest "scores" and the most benefits were determined and used as base-sites in the systematic framework.

Photographic Study

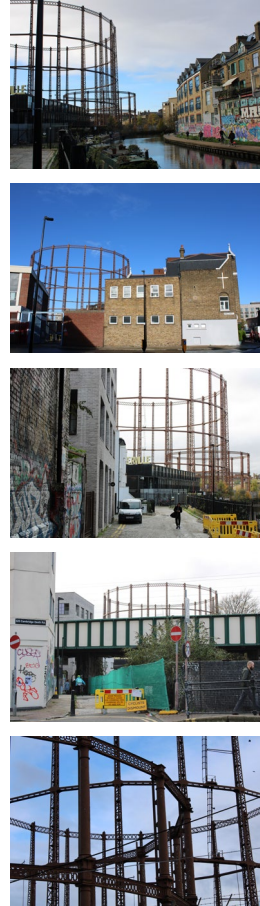
Abbey Lane



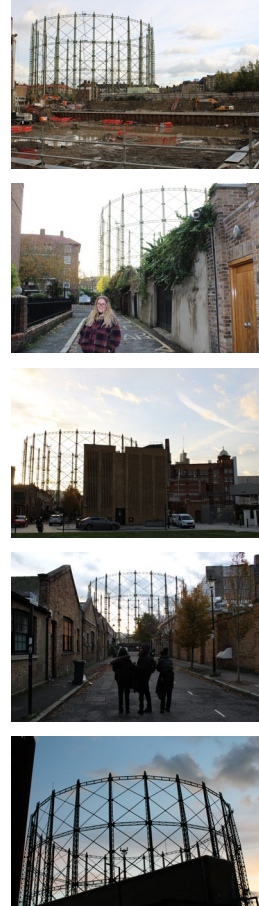
Bromley by Bow



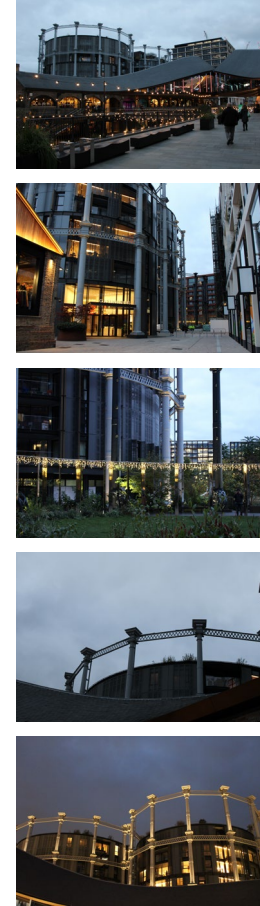
Bethnal Green



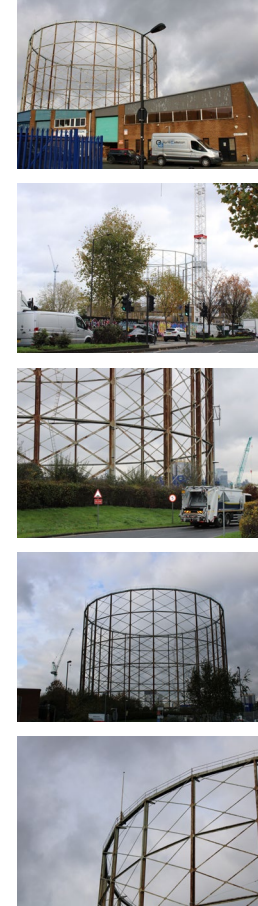
Kennington Oval



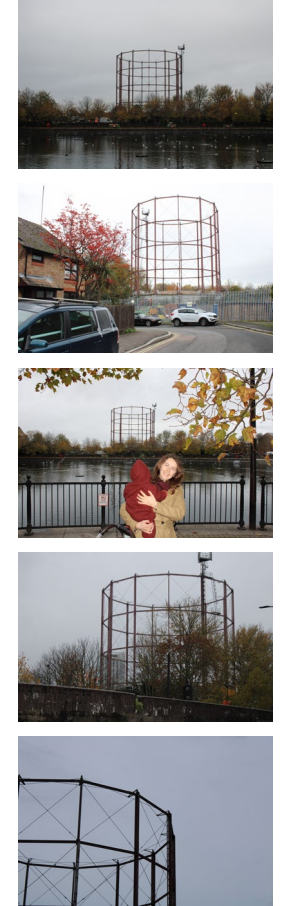
King's Cross



Old Kent Road



Rotherhithe



**Interview 1: Bromley-by-Bow**

Actors: Couple feeding geese living in the area

Time: 14:00

Location: along walkway of Paddington Arm

*We tried a couple of times to approach them and see if they opened the gates to take photos but it is really hard to get into that area. They gave one tour in October but I missed it and I think it was open for developers, for them to buy the land and build tall apartment complexes again. London always builds apartment complexes so that's nothing new. There are so many possibilities in that space because it is so large. I want to be able to use it as a park or maybe have some art installations there, even some of them are filled up I wouldn't mind, I just want to use them.*

**Interview 2: Bromley-by-Bow | Abbey Lane**

Actors: A retired couple, cycling along the Greenway bike path

Time: 15:00

Location: Lookout point in the Greenway, overlooking Bromley-by-Bow Gasholders

*We frequently cycle along this pathway and this is one of our stopping points. We come here to catch our breath, and take a break. We enjoy the view of the river and these weird structures in the background. It would be a shame if they were to be removed but it is also a shame that we cannot go there and cycle inside these structures.*

**Interview 3: Bethnal Green**

Actors: Georgia, young lawyer from New Zealand living in the area

Time: 12:30

Location: The Oval Space

*These structures are part of our area, we enjoy looking at them even though we cannot access them it is nice to know they are still present and empty. They don't ruin the skyline of the city and fit into Hackney's atmosphere. When we go out with my friends here near the Oval Space, at the end of the night we like to walk by and just stare at them. I don't know what it is but it just feels right and it has become a typical way to end the night like this.*

**Interview 4: Kennington Oval**

Actors: Lydia, works in advertisement at Uncovered Group

Time: 15:00

Location: entrance of her work, smoke break

*I always come out here during my break to smoke my vape and I always just stare at them in silence especially when the sun hits it. I can't really explain why I stare at them but it has become a habit and I sort of like looking at it as an empty structure so I wouldn't want it to be filled up. Maybe it would be nice if it became an agricultural space that did not make the area too busy. There is a park nearby but that gets quite busy, so it would be nice to have a quiet space to just sit in. Or link it to the Oval, something to do in there after you watch the cricket match – the pub we go to after work closed down so maybe there could be a new pub in the area. I didn't know what it was before, and didn't research it because I couldn't use it. I just want to look at it. I still find it engaging even though it doesn't do anything.*

**Interview 5: Kennington Oval**

Actors: 3 girls walking from school (Lilian Baylis Technology School)

Time: 15:30

Location: cul-de-saq behind gasholder

*Even though our school is so close to it, we were never allowed to visit it because it is always blocked by the gate. We want to be able to visit it and see what it is. It's so big we like that we can see through it but it would be nice if it was a park so we can go there after school. I think they are making apartments so it will disappear soon. We weren't even able to go.*

**Interview 6: King's Cross**

Actors: Massimo, concierge at the Gasholders apartment complex

Time: 15:00

Location: Reception desk

*It is nice to work in these structures but I am also a bit indifferent. The park is not used by us or the residents. I guess when you have something you get used to it, so the residents go elsewhere. The park is also too small to be seen and doesn't give much to the area so no one really pays attention to it I think. The area around here is huge, so this park doesn't really make a difference. Some families use the park sometimes but not more than an hour, it isn't very significant. The Gasholders are not touristy, maybe sometimes if people are coming from other areas for something else, and they come across it, they look at them but not really and only during the summer.*

**Interview 7: King's Cross**

Actors: Jenna & Margaret, Salvation Army employees from Canada & USA

Time: 16:30

Location: Coal Drops Yard, Gasholders visible

*Hadn't even noticed these structures. We really were just took a wrong turn and ended up here [Coal Drops Yard] and got carried away by everything happening here. It's a beautiful space. [I explained to them that the gasholders have been transformed into apartment buildings, but that one of them had been transformed into a park]. It's a shame that we can't go inside the big ones but we will definitely visit the park.*

**Interview 8: Rotherhithe**

Actors: Alexandra, mother with child in stroller

Time: 14:30

Location: along the Surrey Water

*We moved here because it is a quiet area with nice open views. There aren't many tall buildings in the area so we like that it feels homey. I didn't even know what these structures were, the site has been like this ever since I can remember (8 years +). In my opinion if they decide to redevelop the site, I would want it to be something for us who live here. There are a lot of stuff missing for this community. On Quebec way, they are building 80 social housing so I don't think council has any money left to build more affordable homes – so they would probably build luxury homes here if they make it into a housing complex. I don't want more housing here. The closest stores and restaurants are about a 20 minute walk. I would accept it if it were t become a shopping mall. We definitely need something we can use that would make it a bit more lively for us.*









Bromley-By-Bow  
Newham  
1870 - 1976

Imperial Gasworks  
Hammersmith and Fulham  
1824 - 1970

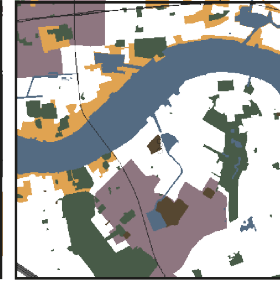
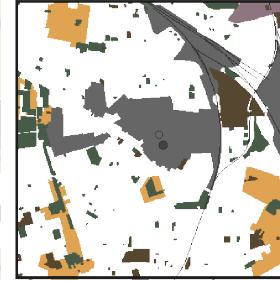
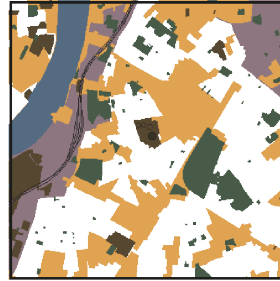
Kennington Oval  
Lambeth  
1847 - 2014

Marian Place  
Tower Hamlets, Hackney  
1853 - 1953

Old Kent Road  
Southwark  
1833 - 1953

Rotherhithe Station  
Southwark  
1849 - 1959

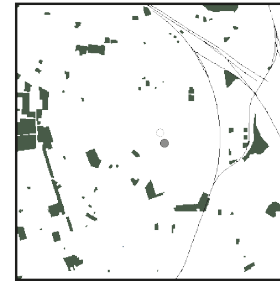
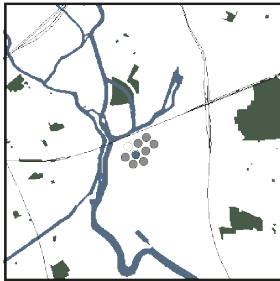
OVERLAPPED NETWORKS



CONSERVATION AREAS



GREEN SPACES



Bromley-By-Bow  
Newham  
1870 - 1976

Imperial Gasworks  
Hammersmith and Fulham  
1824 - 1970

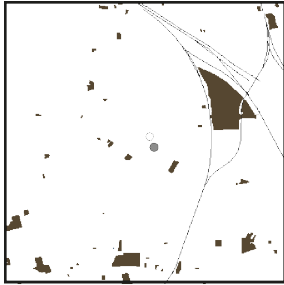
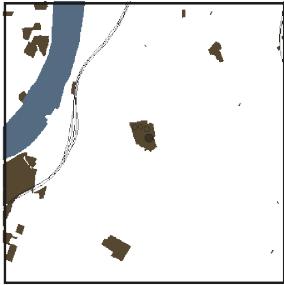
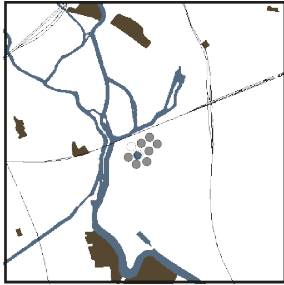
Kennington Oval  
Lambeth  
1847 - 2014

Marian Place  
Tower Hamlets, Hackney  
1853 - 1953

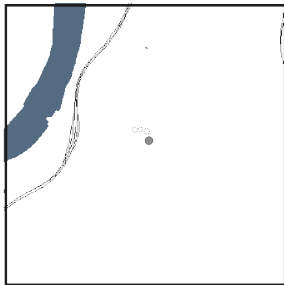
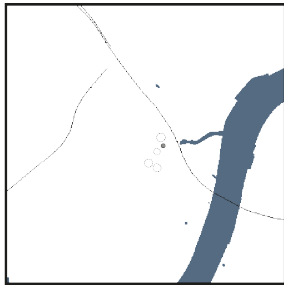
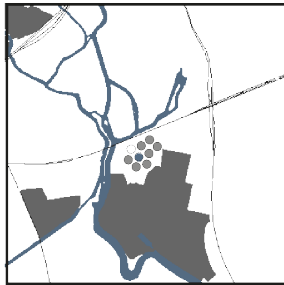
Old Kent Road  
Southwark  
1833 - 1953

Rotherhithe Station  
Southwark  
1849 - 1959

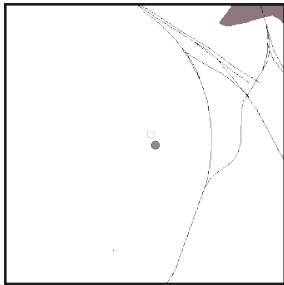
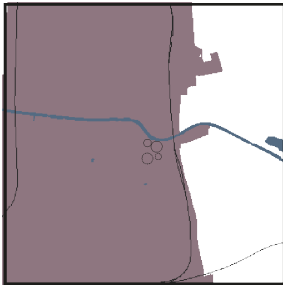
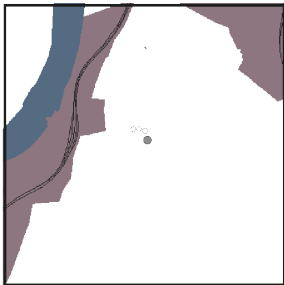
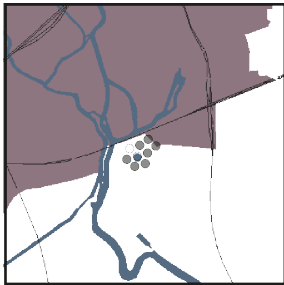
BROWNFIELDS

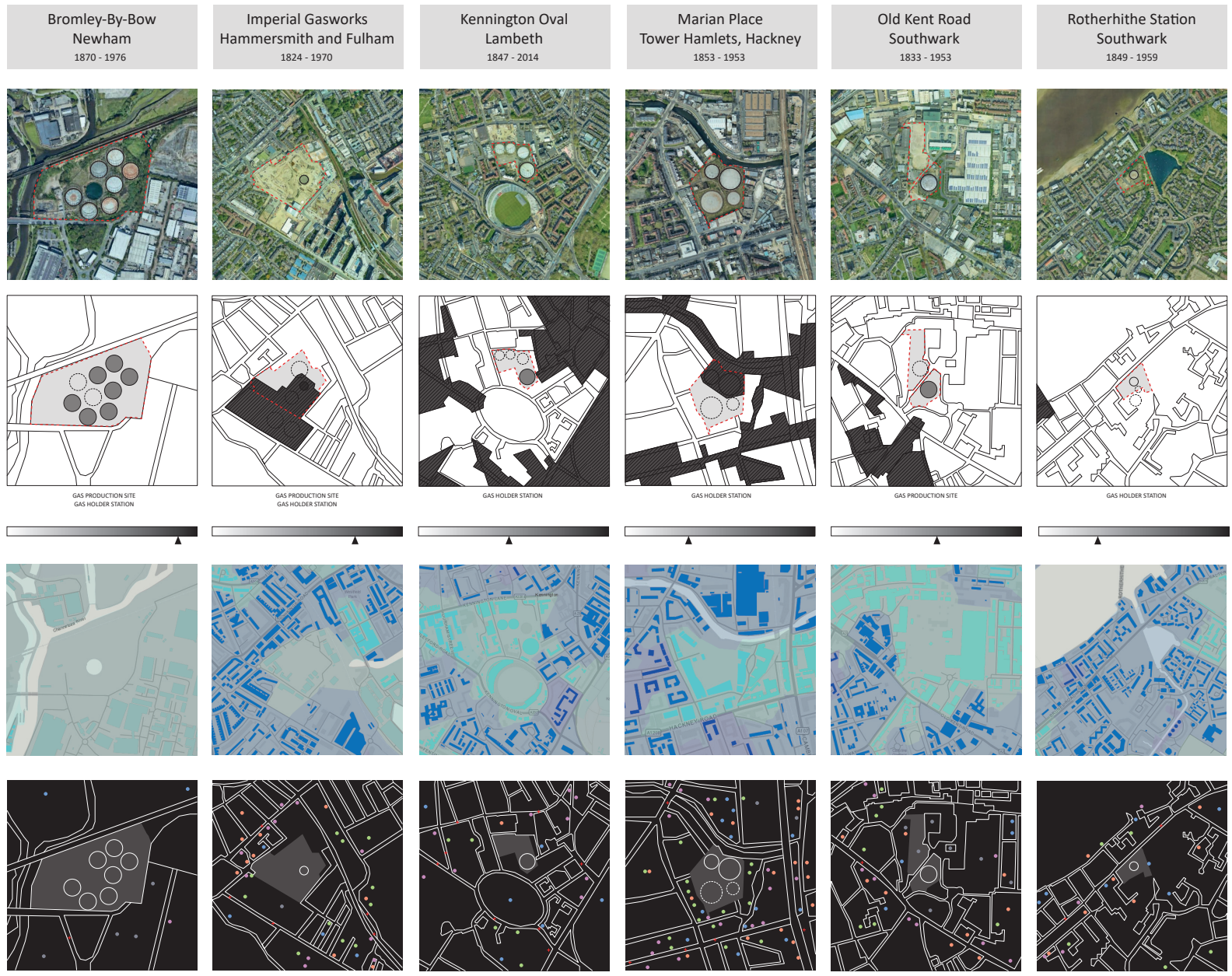


STRATEGIC INDUSTRIAL  
LOCATIONS



OPPORTUNITY AREAS





**SITE OF INVESTIGATION**

- SITE BOUNDARY
- VISIBLE GASHOLDER

**DESIGNATIONS**

**CONSERVATION AREAS**  
(LOCAL AUTHORITY DESIGNATION)  
"DESIRE TO PRESERVE OR ENHANCE THE AREA'S CHARACTER"

**ENGLISH HERITAGE LIST**  
(NATIONAL DESIGNATION)  
"FUTURE CHANGES WILL NOT RESULT IN THE LOSS OF THE SITE'S SIGNIFICANCE"

- CONSERVATION AREA
- LISTED
- NOT LISTED
- DISMANTLED/NO TRACE

GAS PRODUCTION SITE  
GAS HOLDER STATION

**SCHEMATIC TOXICITY LEVEL**

**POPULATION DENSITY**

- HIGH
- LOW

**ON-SITE FUNCTIONS**

- LEISURE/ENTERTAINMENT
- OFFICE/EDUCATION
- SUPPLIES/CARE/SERVICES
- RESTAURANT/BARS
- INDUSTRIAL FACILITIES
- PUBLIC TRANSPORT

## 4.2 Marian Place Gasholder Site, Bethnal Green

After careful evaluation of various gasholder areas based on the mentioned criteria, the Marian Place gasholder site in Bethnal Green emerged as the chosen location for redevelopment. The objective is to create a thriving and vibrant environment that fosters a strong sense of community and enhances the overall quality of life. This segment explores the significance of the site's past and its character, by uncovering and showcasing the site's significance in its second life.

### Uncovering the Site's Significance

The redevelopment project aims to bring forward the importance of the site's character associated with its past, by uncovering and displaying the identity and qualities of the site and its structures. This unique perspective allows the historical significance of the site to shine through, connecting the present community to its rich heritage.

### Preserving Heritage and Embracing Potential

Recognising the historical significance of the Marian Place gasholder site, which is situated within a designated Conservation Area, the project emphasises the importance of preserving its rich industrial and architectural heritage. The site's inclusion in the English Heritage List further underscores its significance and contribution to the city of London. By safeguarding its historical value, the project not only honours the site's past but also embraces the potential for future growth and revitalisation. The gasholders will remain as iconic landmarks on the city's skyline, representing both the importance of the site and its exciting transformation and accessibility.

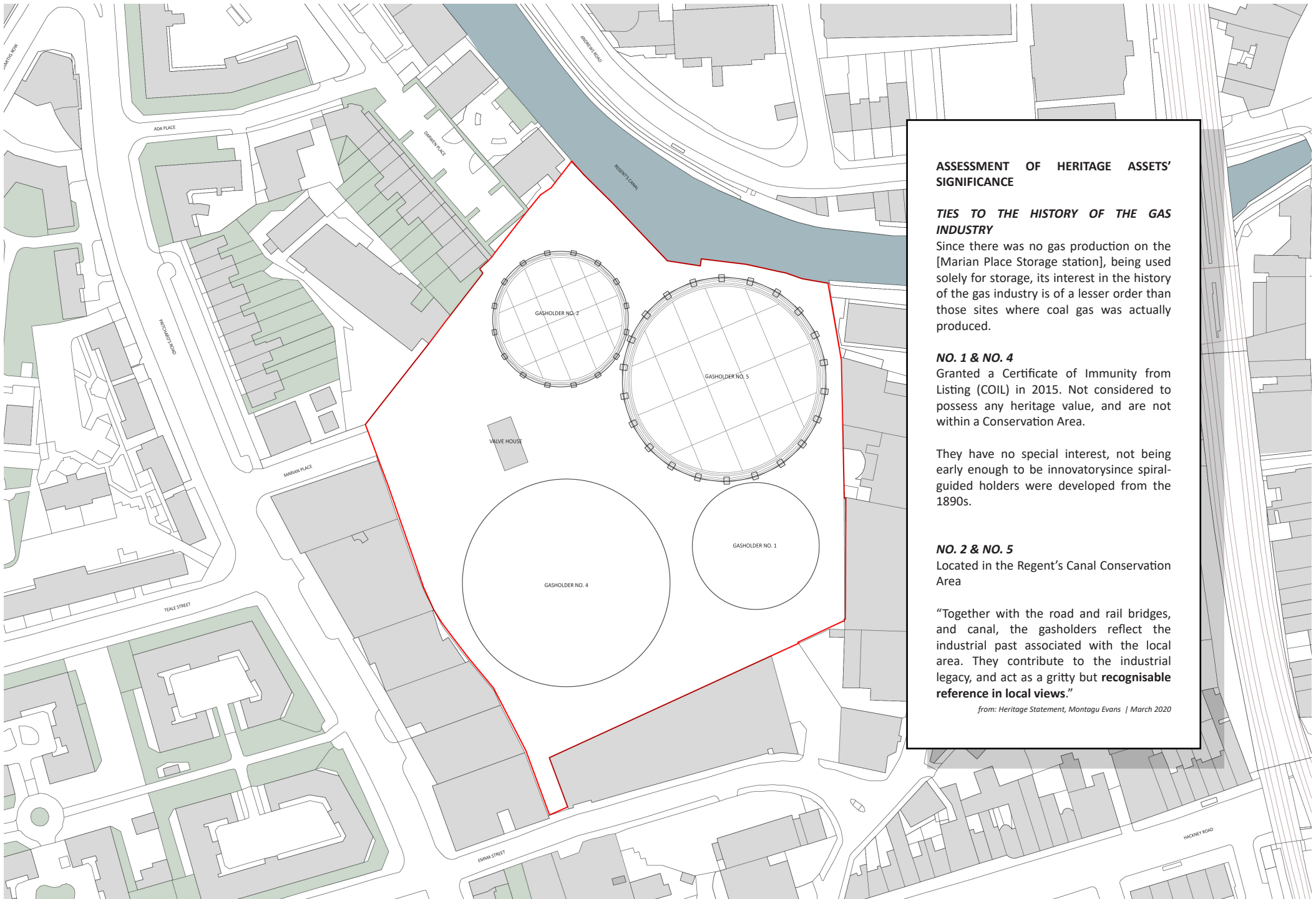
### Creating a Vibrant Community

By harnessing and enhancing the existing synergies within the area, this site emerged as the ideal location for creating a cohesive and vibrant community. The project envisions a dynamic and lively atmosphere where people can live, work, and enjoy recreational activities in close proximity. The interplay between people, functions, and movement will contribute to a vibrant social and economic fabric, attracting both residents and visitors.

### Fostering Future Growth and Integration

Through a meticulous collage strategy informed by research, the redevelopment project at the Marian Place gasholder site aims to respect its historical significance while unlocking its potential for future growth. With a focus on adaptability and flexibility, the site will offer a wide array of functions and amenities that can evolve to meet changing needs. The main building itself will be purposely designed to facilitate and accommodate future adaptations and expansions, enabling continued growth and development, allowing for the integration of complementarity.

The chosen gasholder site in Bethnal Green provides an ideal canvas for revitalisation, showcasing the site's heritage and potential for future growth. By adopting an approach that uncovers the significance of the site, the project connects the present community with its dynamics and its character. The project's vision of a vibrant and cohesive community, where people can live, work, and engage in recreational activities, is set to transform the Marian Place gasholder site into a thriving destination as a dynamic hub of activity.



**ASSESSMENT OF HERITAGE ASSETS' SIGNIFICANCE**

***TIES TO THE HISTORY OF THE GAS INDUSTRY***

Since there was no gas production on the [Marian Place Storage station], being used solely for storage, its interest in the history of the gas industry is of a lesser order than those sites where coal gas was actually produced.

***NO. 1 & NO. 4***

Granted a Certificate of Immunity from Listing (COIL) in 2015. Not considered to possess any heritage value, and are not within a Conservation Area.

They have no special interest, not being early enough to be innovatory since spiral-guided holders were developed from the 1890s.

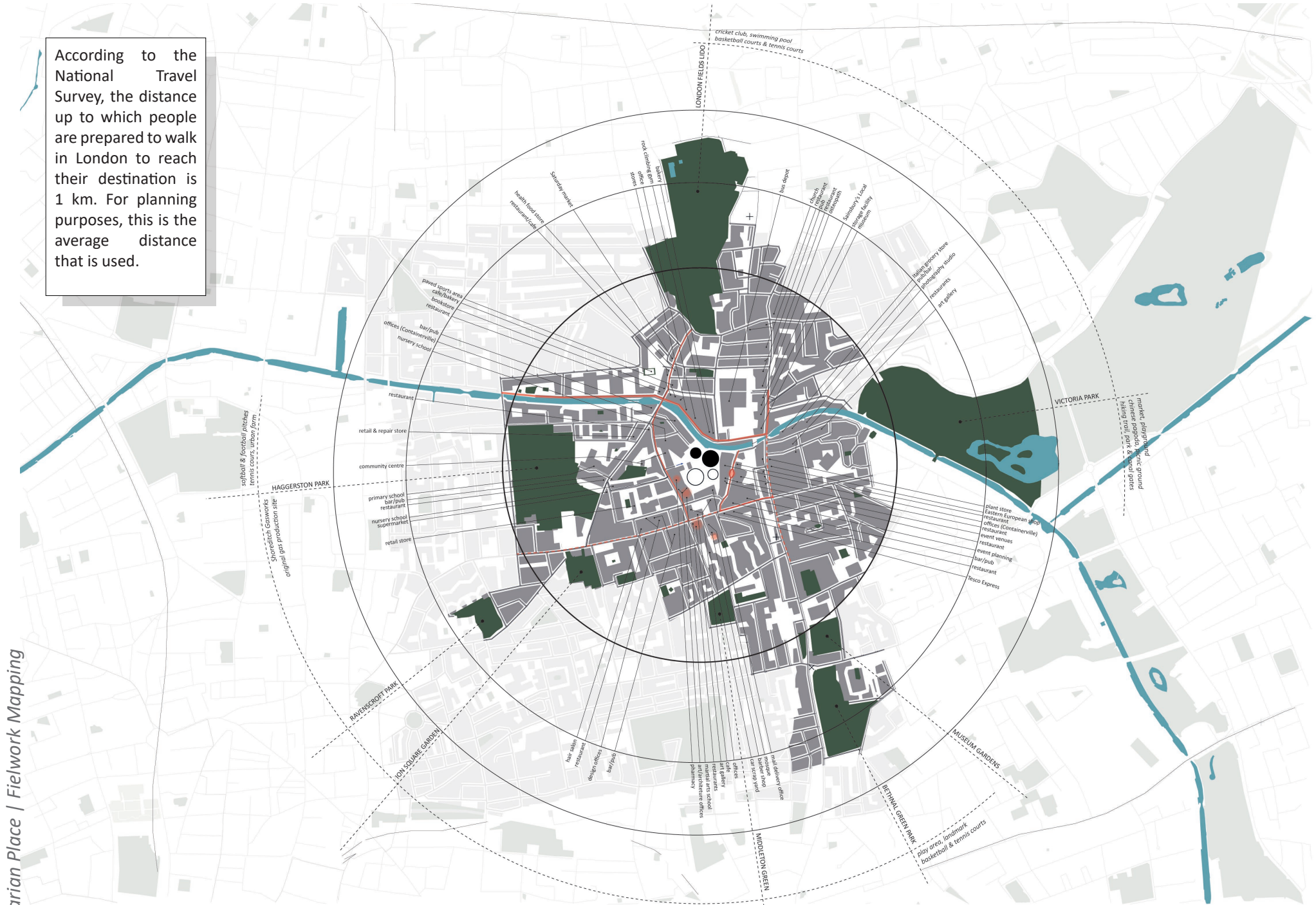
***NO. 2 & NO. 5***

Located in the Regent's Canal Conservation Area

*"Together with the road and rail bridges, and canal, the gasholders reflect the industrial past associated with the local area. They contribute to the industrial legacy, and act as a gritty but recognisable reference in local views."*

*from: Heritage Statement, Montagu Evans | March 2020*

According to the National Travel Survey, the distance up to which people are prepared to walk in London to reach their destination is 1 km. For planning purposes, this is the average distance that is used.









sofball & football pitches  
tennis courts, urban farm

HAGGERSTON PARK  
Shonlich Gasworks  
original gas production site

RAVECROFT PARK

LOX SQUARE GARDENS

LONDON FIELDS LIDO

cricket club, swimming pool  
basketball courts & tennis courts

VICTORIA PARK

market, playground  
chinese pop-up, seasonal gates  
hiking trail, park, seasonal gates

MUSEUM GARDENS

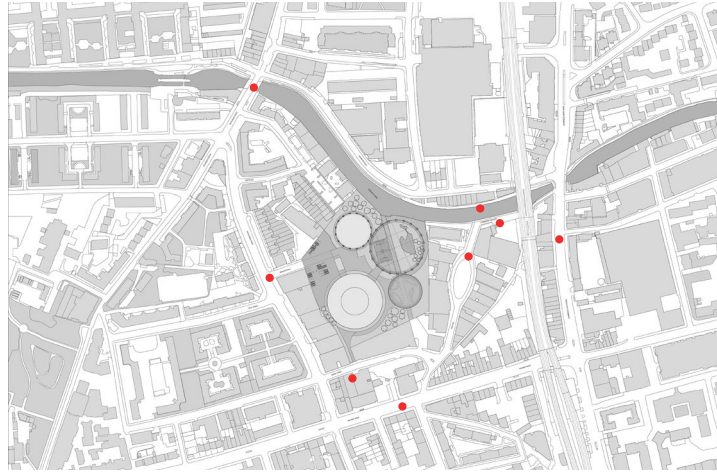
BEDLAM GREEN PARK

play area, lawnmark  
basketball & tennis courts





The area embodies a post-industrial character derived from the canal's historical function and the surrounding industrial structures. While transitioning primarily to recreation, its fundamental character remains centred around the linear waterway and remnants of 19th and 20th-century architecture.



**View from Pritchard's Rd (Broadway Market CA)**  
From this vantage point, observers can grasp the industrial history of the area, symbolised by the presence of the gasholder.



**View from The Oval**  
Gasholder No. 5 can be seen through the passageway of Containerville, and positively contributes to the character of the area.



**View from the canal towpath (North of Marian Place)**  
Serve as a reminder of the area's former thriving industry. These structures play a vital role in preserving and reflecting the industrial character and heritage Tower Hamlets and Hackney.



**View from Corbridge Crescent**  
Prominent view of the gasholders, framed by the tunnel and the railroad bridge above



**View from Marian Place**  
Gasholder No. 2 and 5 seen from the previously used main entrance of the gas storage station site



**View from Hackney Road**  
The lightweight structure of Gasholder No.5 seen in the background gives a glimpse of the industrial heritage of the area while contrasting with heavy brick building in the foreground.

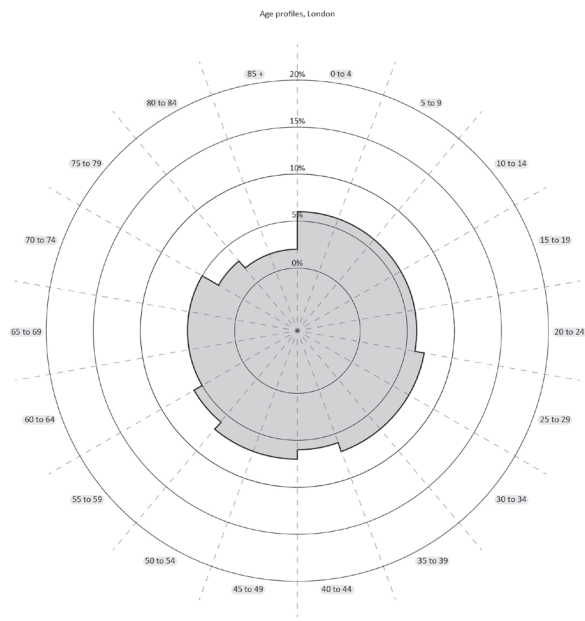


**View from Cambridge Heath Road**  
With the presence of rail bridges and roads, the gasholders collectively create a comprehensive depiction of the area's industrial legacy

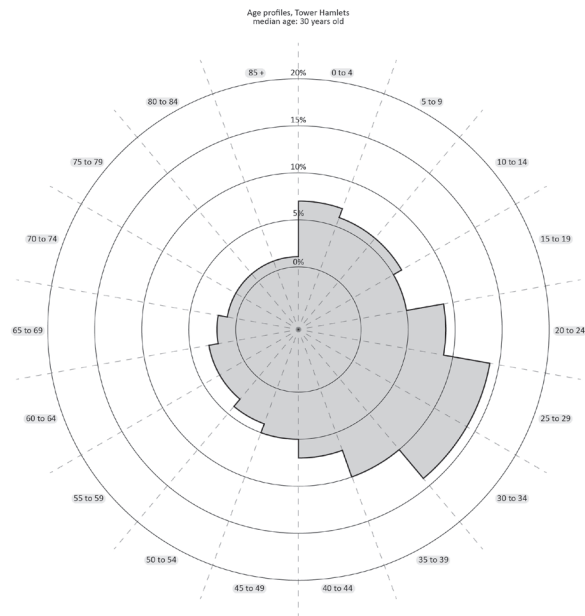


**View from Emma Street**  
Both Gasholders are visible above the adjacent buildings' skyline, from upper office terraces of Containerville, allowing for a comparison in scale.

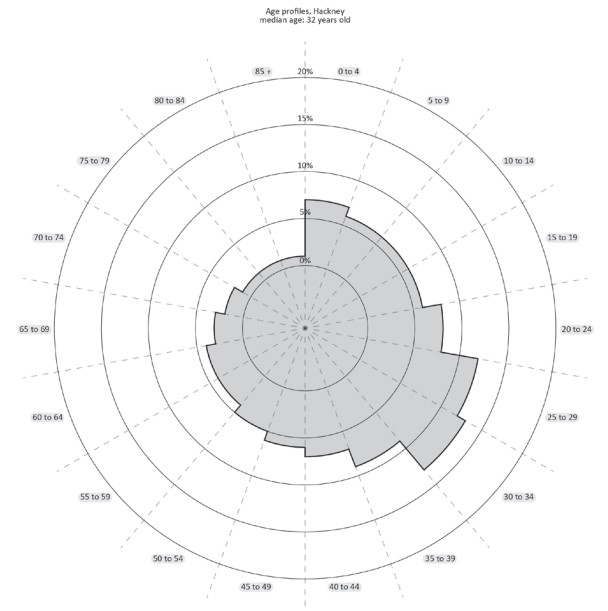
\* personal photos



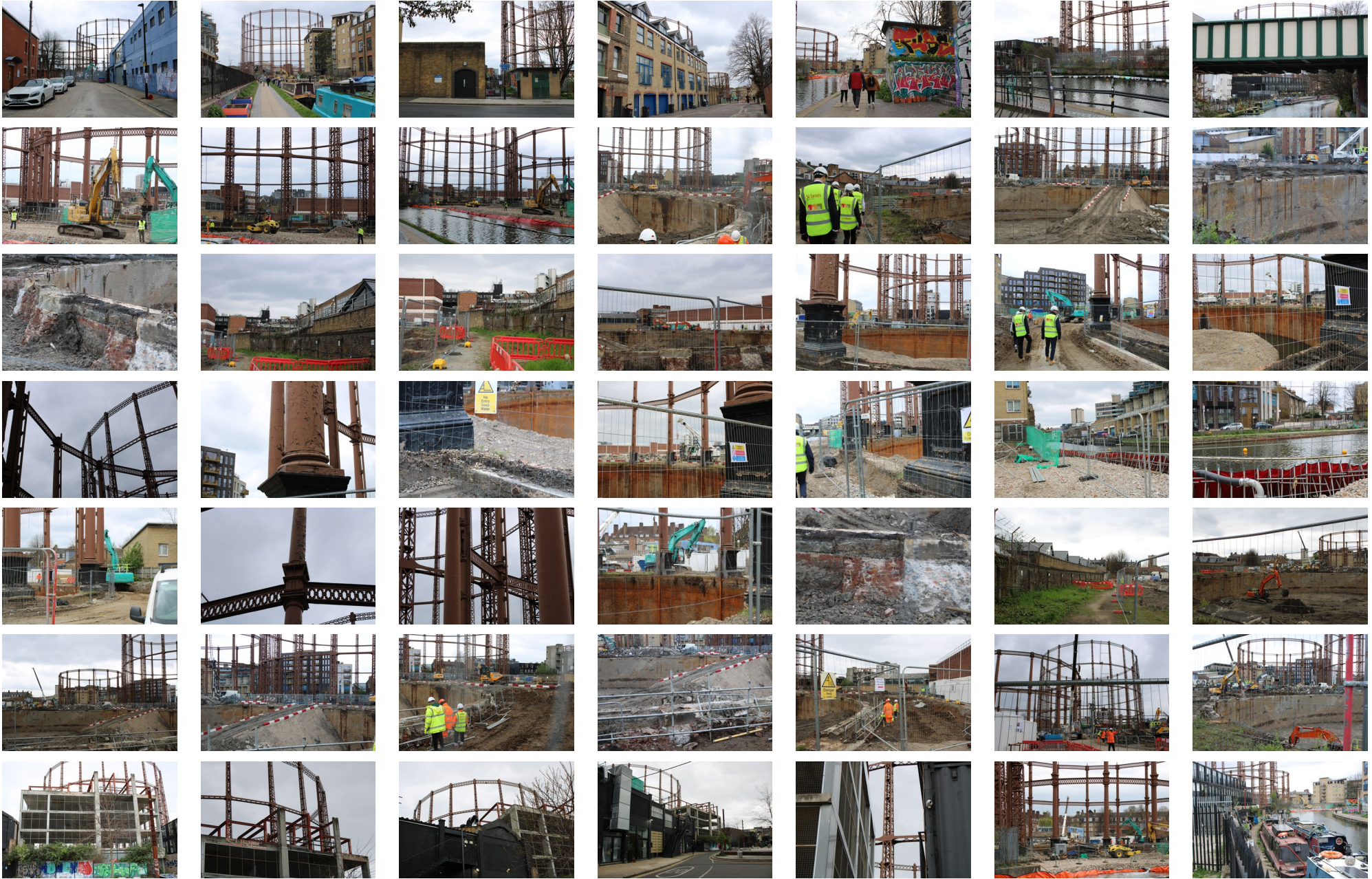
source: ONS 2017 Mid-Year Population Estimates



source: ONS 2017 Mid-Year Population Estimates



source: ONS 2021, percentage of usual residents



## 6. REFLECTION

The relation between my Graduation Project and the Architecture Masters and Track

As an architecture master's student in the Architectural Design Crossovers studio, I have had the opportunity to explore various aspects of architecture through different perspectives. This project allowed me to delve deeper into a specific typology that intrigues me — the integration of industrial typologies and their relevance in the modern urban context. By applying the knowledge gained from my master's program, I aimed to make a positive impact on busy urban environments through a comprehensive approach.

Influence of Research on Design/Recommendations and vice versa

The research phase of my project played a crucial role in shaping my design and recommendations. Through a thorough investigation into various gasholder sites, I identified recurring urban conditions and patterns that guided the development of my design interventions. The research influenced my design choices by providing insights into the essence and unique character of the gasholders and considering how people will interact with these restored locations.

Throughout the research phase, the size and complexity of the gasholder sites, characterised by multiple fragments and diverse types of structures, were identified as prominent challenges. Understanding these challenges has greatly influenced the intervention. One crucial aspect that emerged is the need to retain the identity and significance of the gasholders, while simultaneously creating accessible and useable spaces for visitors. This requires careful consideration of the design elements and architectural interventions.

The design intervention aims to address these challenges by emphasising the importance of the area. It seeks to enable people to physically and visually engage with the gasholders, drawing attention to their historical value and their contribution to the urban landscape. By creating spaces that facilitate meaningful interactions, the design intervention aims to enhance the overall experience for visitors while preserving the essence of these unique structures.

Conversely, the design process has also influenced my research. As I developed design strategies for the selected site, the challenges encountered during the design phase have prompted further exploration into innovative approaches and methodologies to overcome the complexities associated on site.

By integrating research findings into the design process and leveraging design insights to inform subsequent research, a symbiotic relationship has been established between the two. This led me to pursue themes such as collage, boundaries, fragments, and complementarity, which added depth to my project and research. The double-sided influence between research and design ensures a comprehensive and well-informed approach, allowing me to refine my understanding of the site and its potential.

Hence, my intervention aims to address a crucial void in the local vicinity, primarily focused on fostering community connections and offering activities that not only enhance their sense of belonging but also promote mental and physical well-being. The proposed site will include a wellness centre, an easily accessible supermarket, an underground haven, a versatile event venue suitable for performances, impromptu markets, and other communal events, along with a well-maintained park.



The centre offers a wide range of recreational activities, including fitness facilities, preventive care, therapeutic services, community sports, and personal growth opportunities. This comprehensive approach is designed to enhance individuals' physical, mental, and emotional well-being by fostering community connections and supporting their overall development.

There will be a large auditorium in this building used in a complementary way, as large seating/chilling spot, lecture hall, or an extension of the recreational hub. A supermarket is also found in the underground level. It provides convenient access to groceries and supplies for the surrounding area and for the visitors of the site, enhancing the dynamics of the site and targeting multiple groups.

The circular underground courtyard will embrace the distinct characteristics of the space, showcasing its subterranean setting and showcasing the exposed brick tank walls that accentuate its circular design. This space will offer a sheltered space dedicated to community associations and will be adaptable to offer functionalities while retaining its unique qualities.

In contrast to the underground space, the disused gasholder, enclosed by its impressive columns, undergoes a minimal transformation to become a spacious venue that preserves its inherent sense of "emptiness." This adaptable space can readily accommodate the evolving needs of the community. With minimal alterations, it stands as a symbolic monument, offering numerous advantages. Its primary function is to host events, including art performances, while also providing scenic beauty and emphasising its historical significance as a relic of the past. Moreover, it can be used for recreational activities, serving as a supportive addition to the wellness centre. The gasholder serves as a venue for various community events like markets, food festivals, fitness classes, and charity events. Overall, it is a valuable space that supports and enhances the surrounding functions.

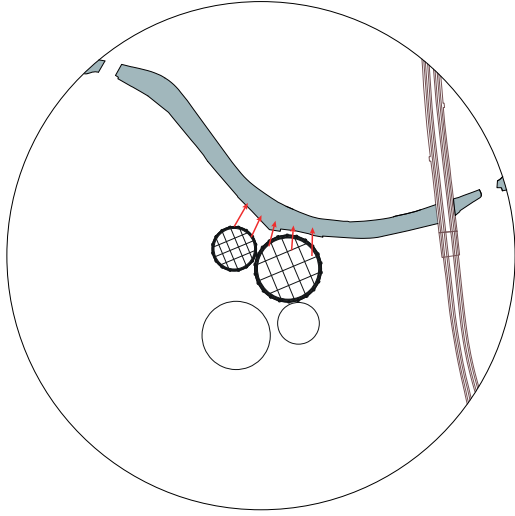
The limited greenery in the area will be addressed through the conversion of the smaller gasholder into a park. This park will feature maintained green spaces, biodiversity habitats such as bee gardens or bird sanctuaries, and inviting seating areas. A designed walking trail will enhance the overall experience of being within the circular space, a space delimited by the striking Doric and Corinthian columns of the gasholders

The waterfront area will be transformed into an appealing towpath that offers the convenience of easy disassembly. This towpath will provide seating along the canal and access to the water-based activities area such as paddle boat or kayaks. Additionally, it will give access to the newly constructed bridge, facilitating convenient passage to the neighbouring borough.

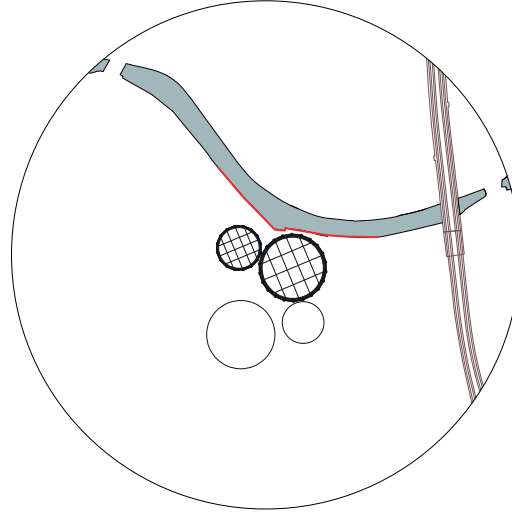
#### Assessment of approach, methods and methodology

The approach I adopted for revitalising gasholder sites proved to be effective in uncovering hidden potential and engaging with the local community. The initial research phase, characterised by a comprehensive investigation and mapping of key provided a strong foundation for site selection. The identification of recurring urban conditions, which can be defined as patterns, characteristics, or elements that are commonly found across various areas, and the subsequent establishment of themes added depth and coherence to my design interventions.

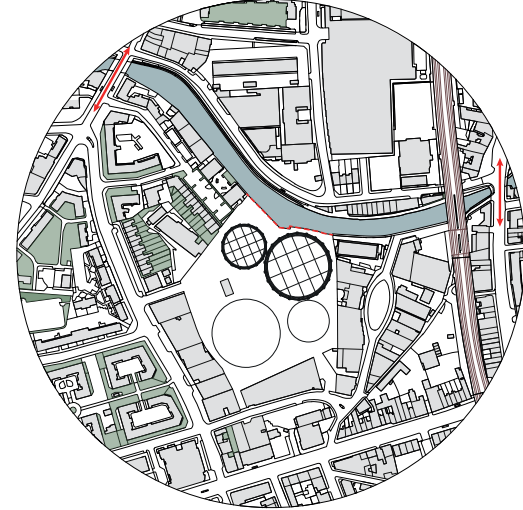
WATERFRONT



waterfront dedicated to site  
direct interaction / access

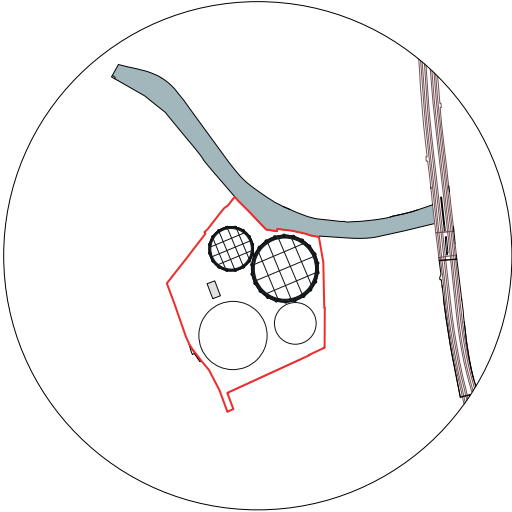


physically disconnected  
no direct interaction

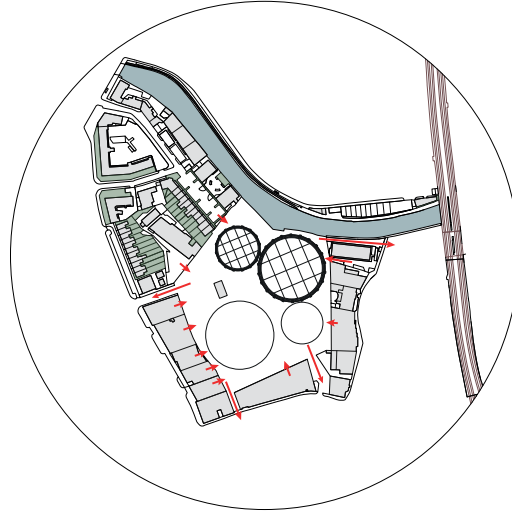


connected boroughs  
partial interaction

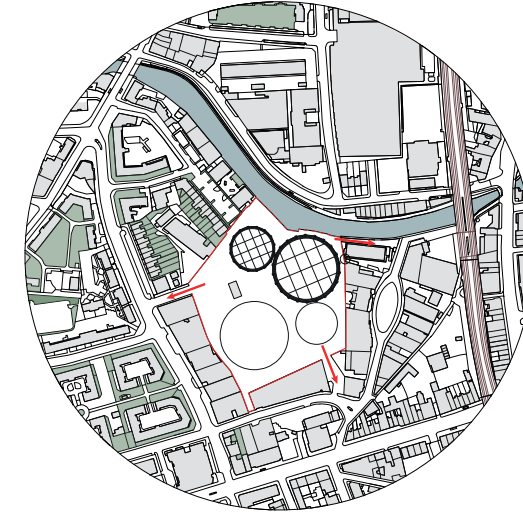
ENCLAVE



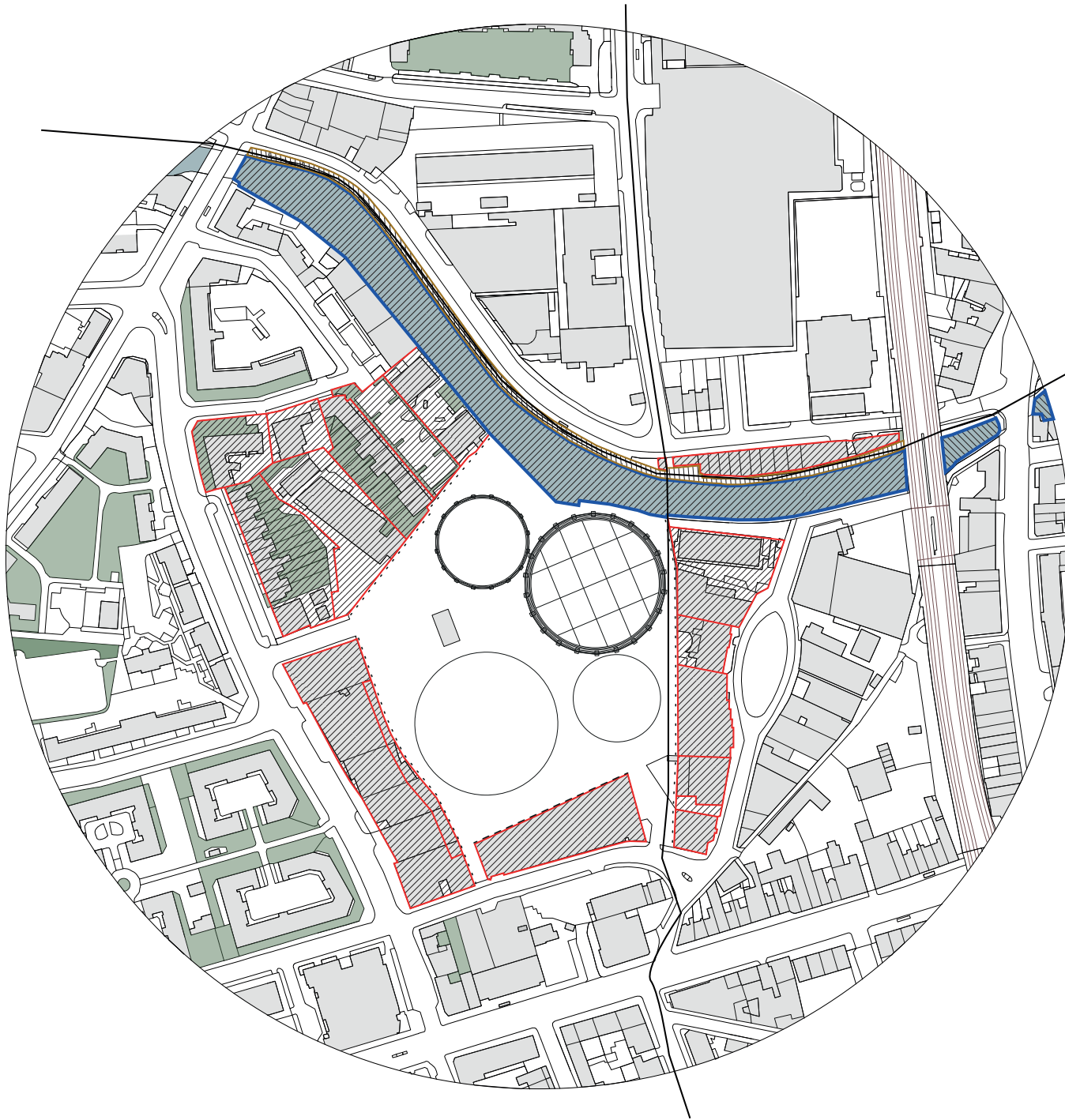
fenced-off area









entirely open site  
unconfined accessibility



communication with  
surrounding area (specific)



-  buildings
-  waterbody
-  towpath
-  facade fragment
-  brick wall
-  continuous promenade

In terms of methods and methodology, I employed a combination of qualitative and quantitative approaches. The use of large city-scale maps, the multiple site visits and interviews, and the analysis of various parameters and constraints helped in informed decision-making. The initial design process allowed for feedback and reflection, ensuring continuous improvement and refinement of the project as well as its supporting research.

### Academic and Societal Value, Scope and Implication

The academic value of my graduation project lies in its contribution to the field of architecture, and specifically in the context of urban renewal and revitalisation. As new structures continually emerge, there is a risk of overlooking spaces with untapped potential, leading to their gradual decline and loss of identity.

These structures, often overlooked or at risk of fading into obscurity, possess a unique charm that contributes to the city's character. By focusing on the integration of industrial typologies and their adaptation to meet modern societal needs, the project offers insights into the conservation and transformation of dormant landmarks. It highlights the importance of valuing and respecting existing structures and encourage a sense of place and belonging, rather than solely focusing on new construction. This approach contributes to the broader discourse on sustainable urbanisation and promotes the responsible use of urban resources.

In terms of societal value, the implications of this graduation project extend beyond the immediate context, inspiring similar endeavours and fostering a more responsible and sustainable approach to urban transformation. By showcasing the potential of reimagining and repurposing existing spaces, it serves as a case study for other urban environments facing similar challenges.

The project encourages a shift in mindset towards appreciating and utilising what already exists, rather than pursuing constant demolition and construction. It offers a framework for sustainable development that can be adapted and applied in various contexts, making a positive impact on urban landscapes worldwide.

### Value of Transferability of Project Results

The transferability of my project results is an important consideration. While the design interventions and strategies were developed specifically for the Bethnal Green site, the underlying principles and strategies can be adapted to other gasholder sites with similar characteristics. The identification of recurring urban conditions and the exploration of common themes can serve as a toolkit for revitalizing other sites, taking into account their unique contexts and societal needs. The concept of enhancing the current state of an area by preserving its unique character and repurposing existing structures rather than demolishing them offers a valuable framework for future projects.

To maximise the transferability of my project results, I actively engaged with key stakeholders and leveraged networking opportunities to amplify the impact of my thesis. By reaching out and speaking with individuals on the English heritage list<sup>1</sup> as well as architects and developers involved in gasholder sites in London, I created potential avenues to present my findings and propose a way of treating these gasholders and advocate for giving them more value while reviving them in a way that respects their character.

<sup>1</sup>Claire Brady | Inspector of Historic Buildings and Areas, Historic England

During my discussions, I had the opportunity to connect with a notable developer<sup>3</sup> who is closely affiliated with both the Bromley by Bow and Bethnal Green gasholder sites. He expressed interest in my research project and offered the possibility of me giving a lecture to share my research outcomes and provide my opinion on the current projects and those to come. This invitation presents an exciting chance for me to influence the ongoing discourse surrounding these sites and shape decision-making processes.

This expands the transferability of my project beyond its immediate academic scope. I can disseminate my findings, recommendations, and perspectives to a wider audience, fostering awareness and understanding of the value inherent in these structures. Furthermore, by seizing these networking opportunities, I position myself as a reputable resource for heritage committees, developers, and professionals involved in similar projects by instilling a deeper appreciation for historical and architectural significance of these sites, and guiding future endeavours in revitalising and preserving these structures across various locations.

Looking ahead, the final phase of the graduation period will involve the implementation and refinement of the design interventions proposed for the Bethnal Green site. This will include further enhancement of strategies to engage users with the site, considering its historical value, and assessing the positive impacts on the surrounding community. Through ongoing reflection and learning, the project aims to contribute to the field of urban renewal and inspire future interventions that embrace the essence of dormant landmarks and unlock their potential for the benefit of society.

## Reflection Questions

These reflection questions aim to encourage thoughtful consideration of the broader implications and future possibilities tied to the regenerated gasholder site, its impact on the surrounding community and its sustainability long term.

How can the immediate surrounding of the revitalised gasholder site be transformed to benefit the neighbourhood, and what strategies can be implemented to integrate the site with its surrounding urban fabric, ensure a seamless and harmonious transition, and act as a catalyst for positive change, stimulating further development and regeneration in the surrounding borough? Additionally, are there opportunities to create connections and linkages between the gasholder site and existing amenities, such as transportation networks, or cultural institutions, in order to enhance accessibility and connectivity?

How can a standardisation method for interventions on gasholder sites be further developed, aligning with the existing typology of gasholders being standardised and integrating the implemented concept of easy extension, here achieved through an exposed steel structure? How can collaboration between architects, urban planners, heritage experts, and developers lead to the development of a shared framework and standardised processes for interventions on gasholder sites?

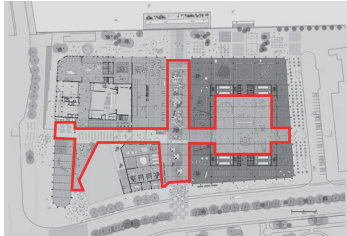
<sup>2</sup>Simon Lewis | Development Director, St James/St William

**The Whitney Museum | New York, USA**  
Renzo Piano + Cooper Robertson



Various outdoor levels/larger areas - viewpoints.

**KANAL | Brussels, Belgium**  
OMA

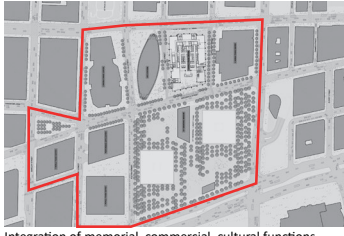


Undisrupted public space + transition spaces.



Flexible hall, showroom.

**World Trade Centre Memorial | NY, USA**  
Santiago Calatrava, Michael Arad



Integration of memorial, commercial, cultural functions.

**Kunsthalle Mannheim Building | Mannheim, Germany**  
gmp Architects



Circulation within the building remains simple for the visitors and grid in plan and elevation replicate the order and straightforwardness of this "city of squares".



Central atrium enclosed by exhibition space and rooms for supporting functions connected via galleries, terraces, and bridges creating routes with changing views and vistas.

**Dexamenes Seaside Hotel | Kourouta, Greece**  
K-Studio

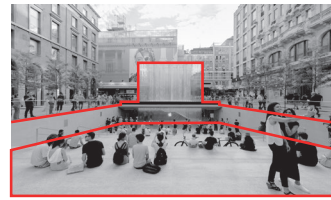


History and raw beauty of existing buildings is showcased. Two steel drums preserved, used as exhibition/leisure hall.



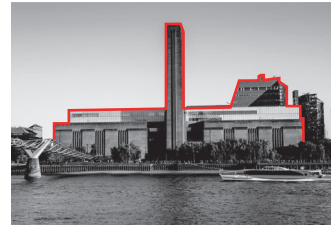
Concrete blocks divided for wine storage tanks (5m x 6m) used as hotel rooms. Doorway openings - slabs used as stepping pathway.

**Apple Store | Milan, Italy**  
Foster + Partners

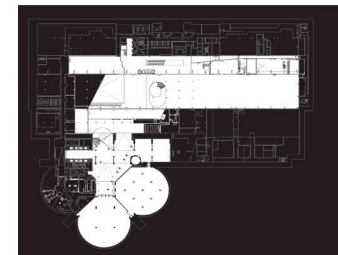


Provides a public welcoming square for visitors to take over. Sense of transparency and openness.

**Tate Modern | London, England**  
Herzog & de Meuron

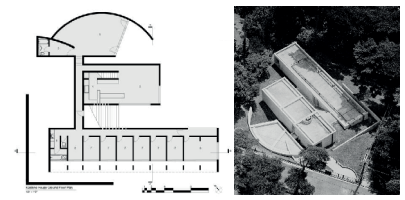


Iconic chimney of the Tate Modern still serves as a reference point on the Thames River as the new structure (north) does not compete with it.



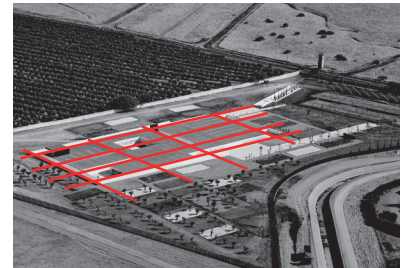
Celebrates the industrial heritage of the Bankside area. Attractive surrounding urban regeneration facing riverbank.

**Koshino House | Hyogo, Japan**  
Tadao Ando



Balances rectilinear forms with crescent-shape. Staircase creates breathing space between concrete blocks.

**Madinat Al Zahara Museum | Cordoba, Spain**  
Nieto Sobejano Arquitectos

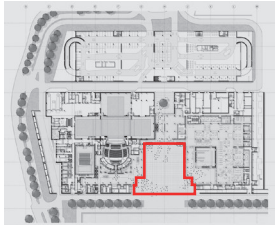


Respects a two-dimensional orthogonal grid, excavations follow rectangles of the grid.

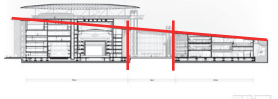


Use of white concrete and rusted steel i.e. contemporary materials that communicate with stucco and ceramic of the ancient city.

**Stavros Niarchos Foundation | Athens, Greece**  
Renzo Piano

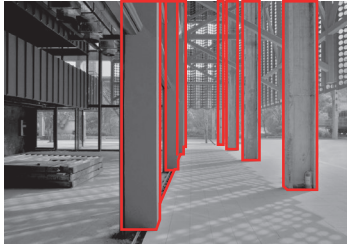


Active/dynamic public space. Flexible uses.



Integral building, continuous/complete and fragmented by central courtyard.

**Chongqing Industrial Museum | Chongqing, China**  
WallaceLiu

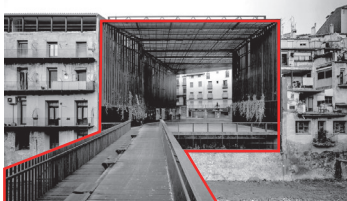


Lightweight steel structure inserted in the old.



Semi-enclosed space | min. need for mechanical ventilation.

**La Lira Theater Public Open Space | Spain**  
CR Arquitectes



Overarching language. Indicative strategy, walkway to building.

**Neues Museum | Berlin, Germany**  
David Chipperfield



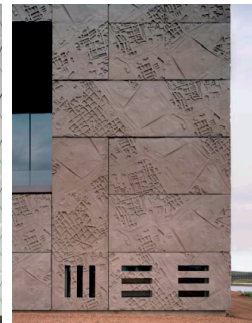
Retains existing fabric by reinforcing it, leaving traces of the original finish.

**Centre for Contem Art | Cordoba, Spain**  
Nieto Sobejano Arquitectos



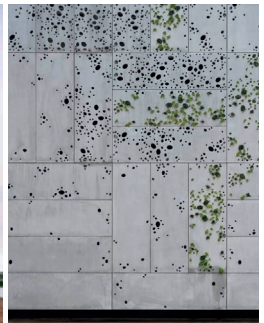
The geometry evokes the ornamentation of the Islamic architecture.

**Congress Centre | Merida, Mexico**  
Nieto Sobejano Arquitectos

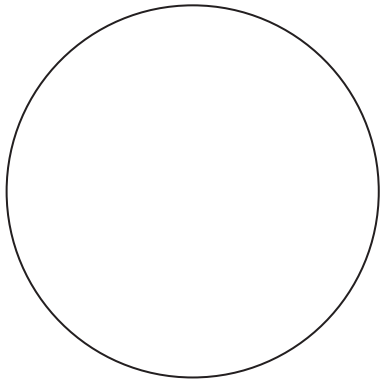


Stone-like material imprinted with fragment of the city to establish visual/symbolic link.

**San Telmo Museum | San Sebastian, Spain**  
Nieto Sobejano Arquitectos



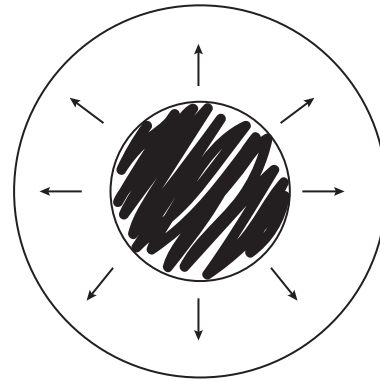
Perforations allow moss and lichens growth, alludes to rock and vegetation of the city.



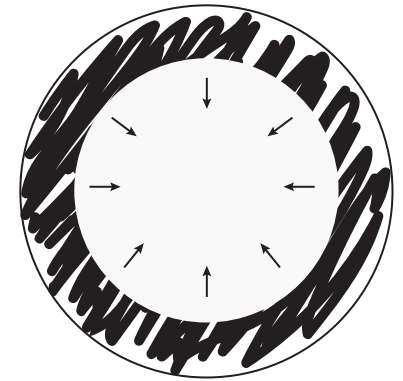
GEOMETRY | VOID



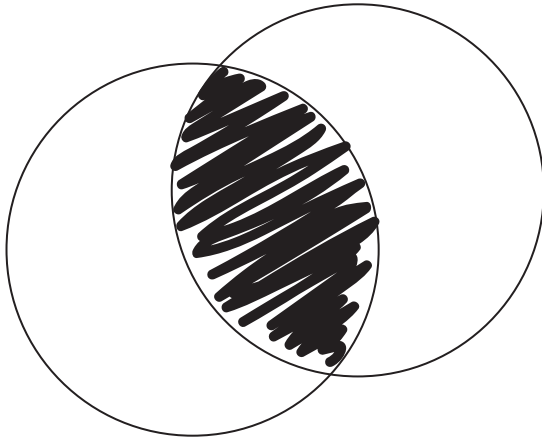
FULL



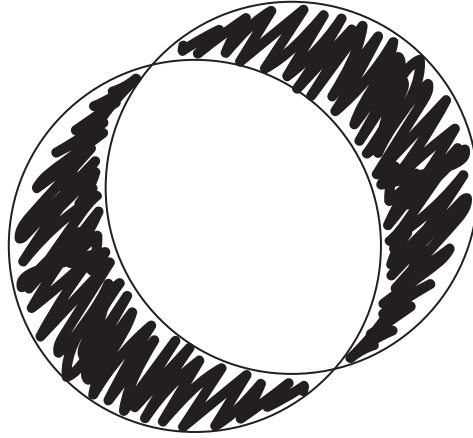
EXPOSURE



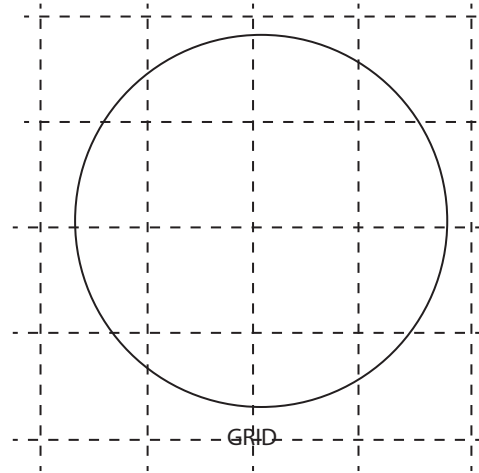
ENCLOSURE



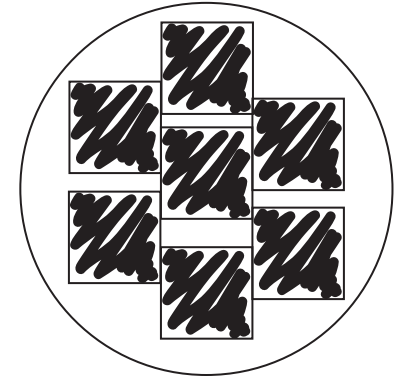
SHIFT IN



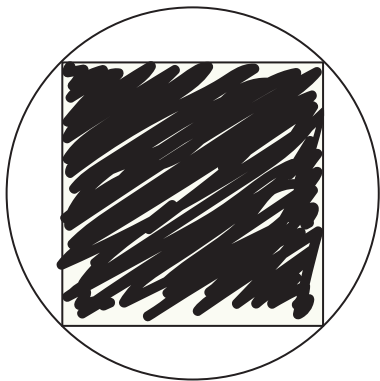
SHIFT OUT



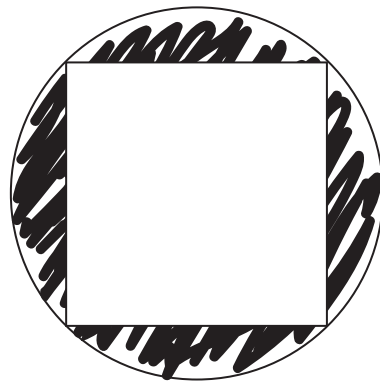
GRID



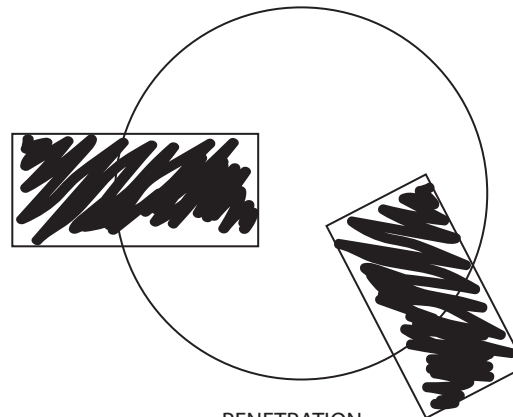
CLUSTER



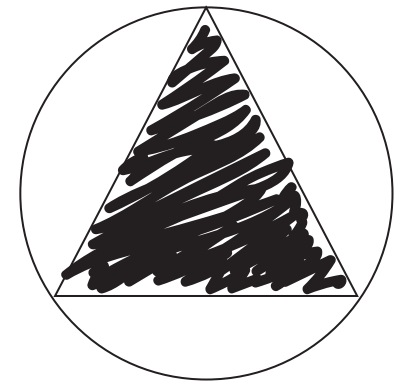
INFILL



INFILL INVERSE



PENETRATION



FOREIGN

## **GLOSSARY**



### Collage

“the original identity of the fragment or object and all of the history it brings with it; the new meaning it gains in association with other objects or elements; and the meaning it acquires as the result of its metamorphosis into a new entity.” (Waldman, 1992)

Complementary architecture as a technique to:

- emphasise inherent qualities and unveil identity (history/culture)
- promote pre-existing values (architectural)
- complement environments/communities based on shortages (social needs)

Conservation: “seeks the proper use of nature” (National Park Service). Heritage conservation wishes to manage change through assessment, interpretation, documentation, or strategic management (Heritage Conservation: Historic Preservation vs. Heritage Conservation) while regulating human use.

### Dead space (“délaisé”)

“Le délaisé procède de l'abandon d'un terrain anciennement exploité. Son origine est multiple: agricole, industrielle, urbaine, touristique, etc. Délaisé et friche sont synonymes.” (Clément, 2004)  
[A neglected terrain that was once exploited in the past by agriculture, industries, urbanism, tourism, etc.]

### Heritage (Drury & McPherson, 2008)

Heritage: “All inherited resources which people value for reasons beyond mere utility.”

Heritage, cultural: “inherited assets which people identify and value as a reflection and expression of their evolving knowledge, beliefs and traditions, and of their understanding of the beliefs and traditions of others.”

Heritage, natural: “Inherited habitats, species, ecosystems, geology and landforms, including those in and under water, to which people attach value.”

### Macro, meso, micro scales

Macro: network of spaces, relatively large-scale, city-scale architecture  
Meso: areas and sites, urban spaces with visible limits and limitations  
Micro: specific and particular elements, interventions visible through experiences

Preservation: “seeks the protection of nature *from* use” (National Park Service). Historic preservation tends “to pause or understand a resource only from a certain point in time, effectively protecting it from change or evolution” (Heritage Conservation: Historic Preservation vs. Heritage Conservation) with the aim to eliminate human impact.

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