

Nov. 2022

Architectural Design Crossovers  
TU DELFT

## P1 PRESENTATION

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## The Gasholder: A Floating Structure

*Breathing space in a congested city*



*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*

*How can complementary architecture act as a mediating tool in reviving vacant heritage sites for the needs of an ever-changing society without rendering their qualities obscure?*

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***(1) conceptual questions***

*What structures are left vacant after the occurrence of societal changes, and more precisely after industrial shifts?*

*What are the causes and consequences of structures being forgotten and consequently losing their historical significance?*

*Why are structures condemned to becoming ghosts of their past or standing ruins, and how can this phenomenon be prevented?*

*How can complementary architecture act as a mediating tool in reviving vacant heritage sites for the needs of an ever-changing society without rendering their qualities obscure?*

***(2) methodological questions***

*How can we understand or study these vacant sites with their accompanying functions - past or future - within an ever-changing society?*

*How can we conserve the memory of these structures without altering their character and dispelling their cultural significance?*

*In which ways can we uncover the hidden values and attributes of these structures that are deemed important enough to be conserved?*

*What information can we extrapolate to create a narrative around their history?*

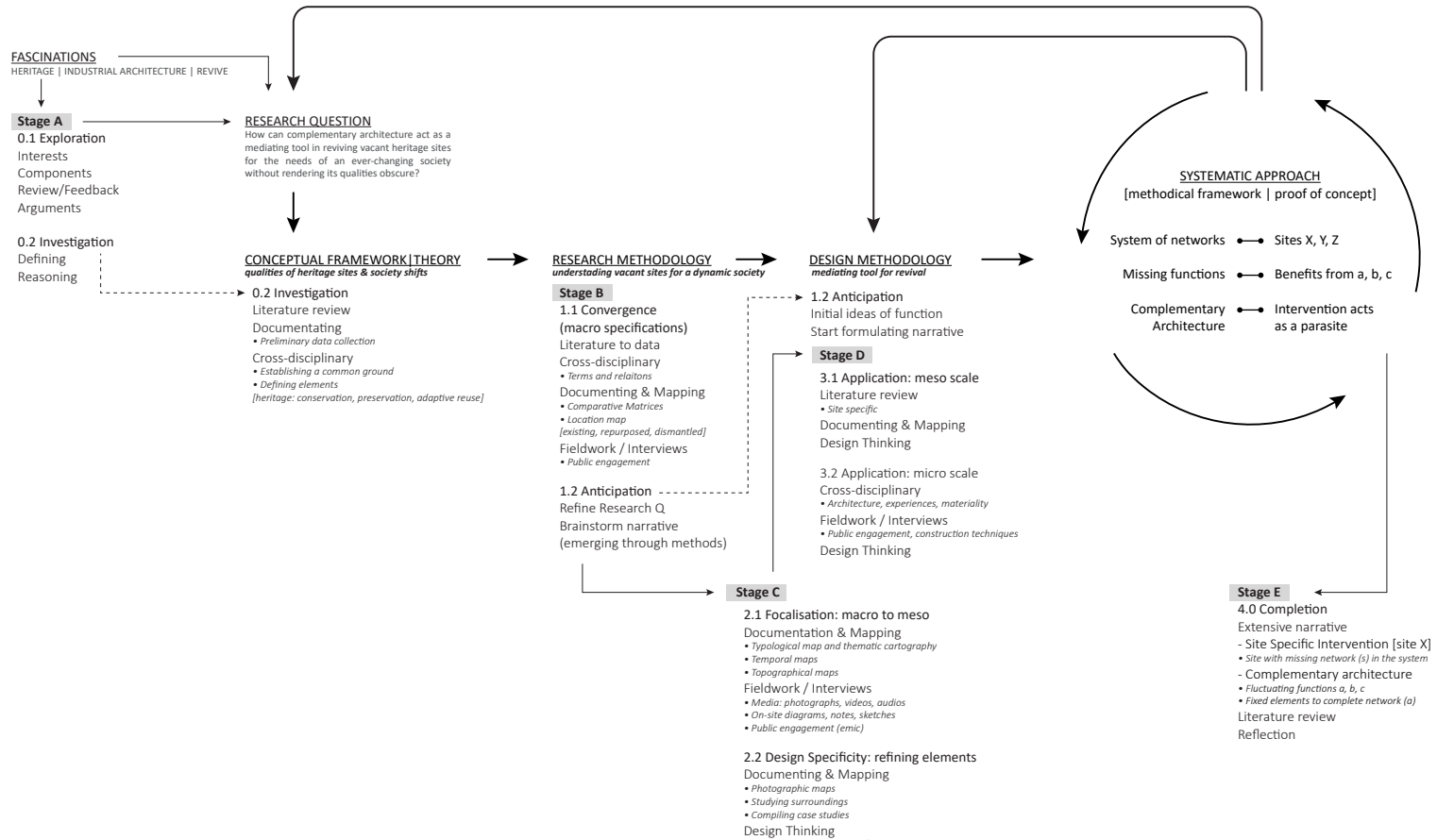
*How can complementary architecture act as a mediating tool in reviving vacant heritage sites for the needs of an ever-changing society without rendering their qualities obscure?*

### ***(3) design methodological questions***

*What spatial interventions appertaining to complementary architecture could become a mediating tool for reviving them?*

*How can these dormant spaces contribute to the city and be promoted to encourage users to engage with them?*

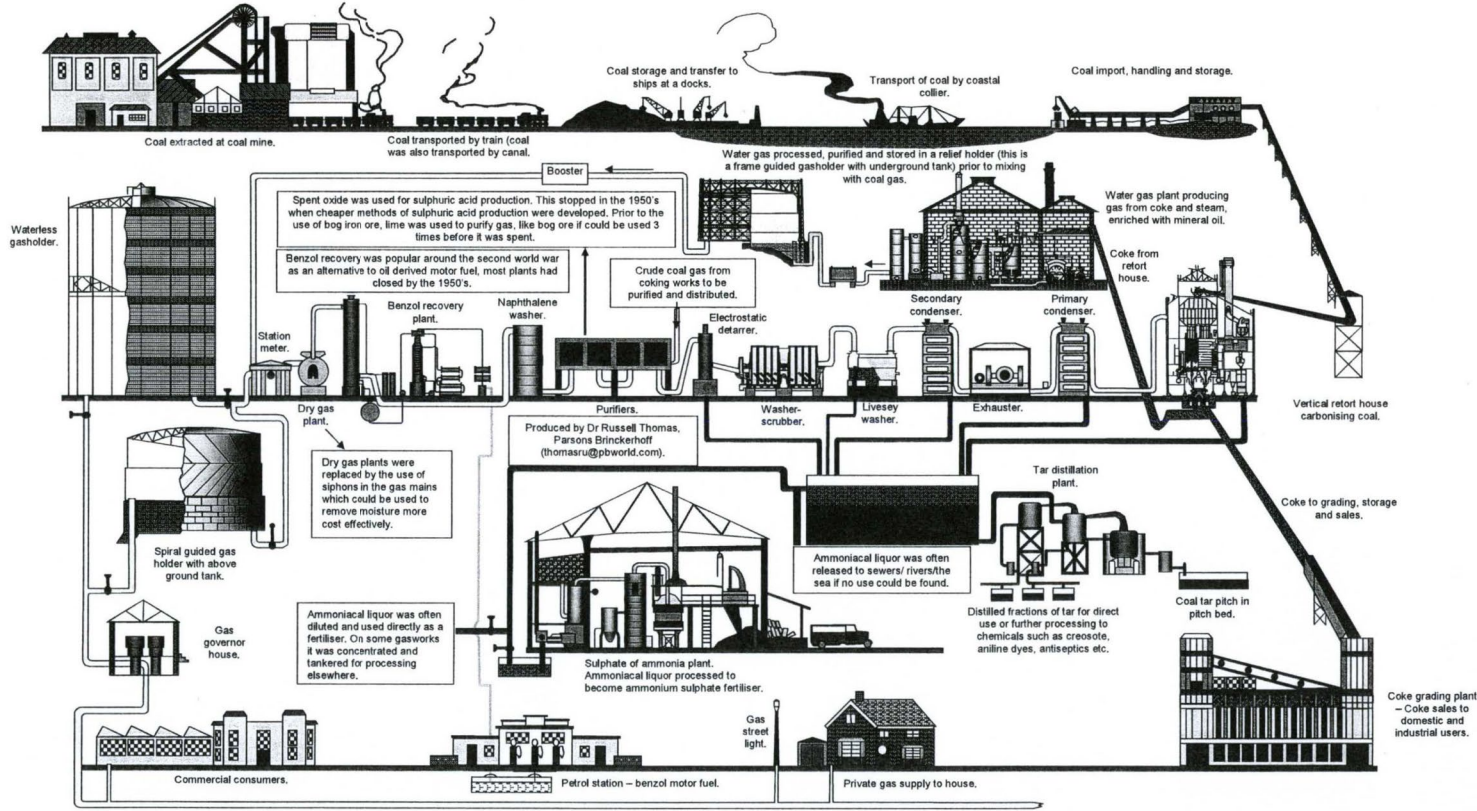
*In this chapter, I will attempt to bring forth a new attitude of revitalising heritage sites while avoiding converting them into basic models of adaptive reuse.*



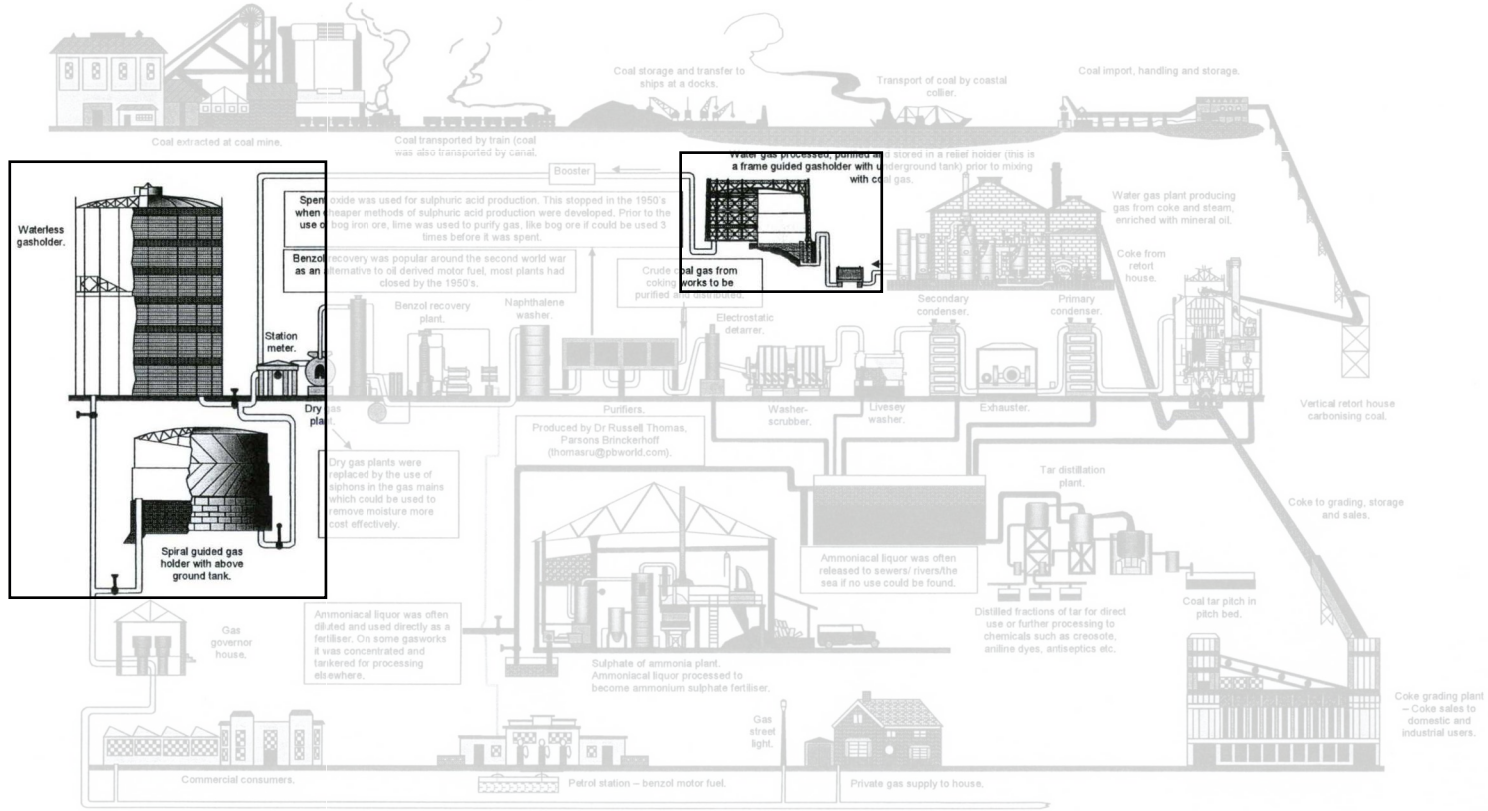








Production of Gas: From Extraction to Distribution



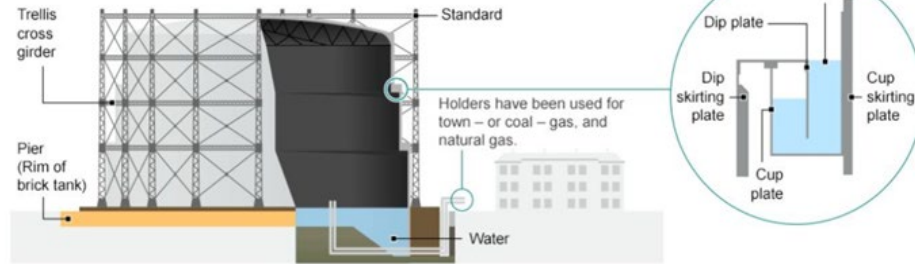


*Le délaissé procède de l'abandon d'un terrain anciennement exploité. Son origine est multiple: agricole, industrielle, urbaine, touristique, etc. Délaissé et friche sont synonymes.”*  
(Clément, 2004)

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.

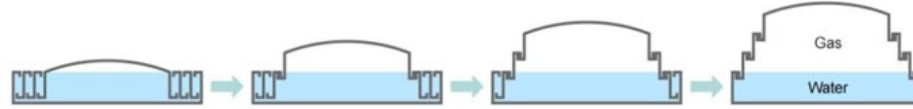
## How gas holders work

Typically, about 50,000 cubic metres of gas is held at low pressure.



### Column-guided gas holders

Most common type of gas holder found in UK. Fixed metal frames guide the cylindrical telescoping walls, up or down. Gas enters through the base and the pressure pushes up the chambers one by one. Water helps keep gas in and air out, preventing ignition.



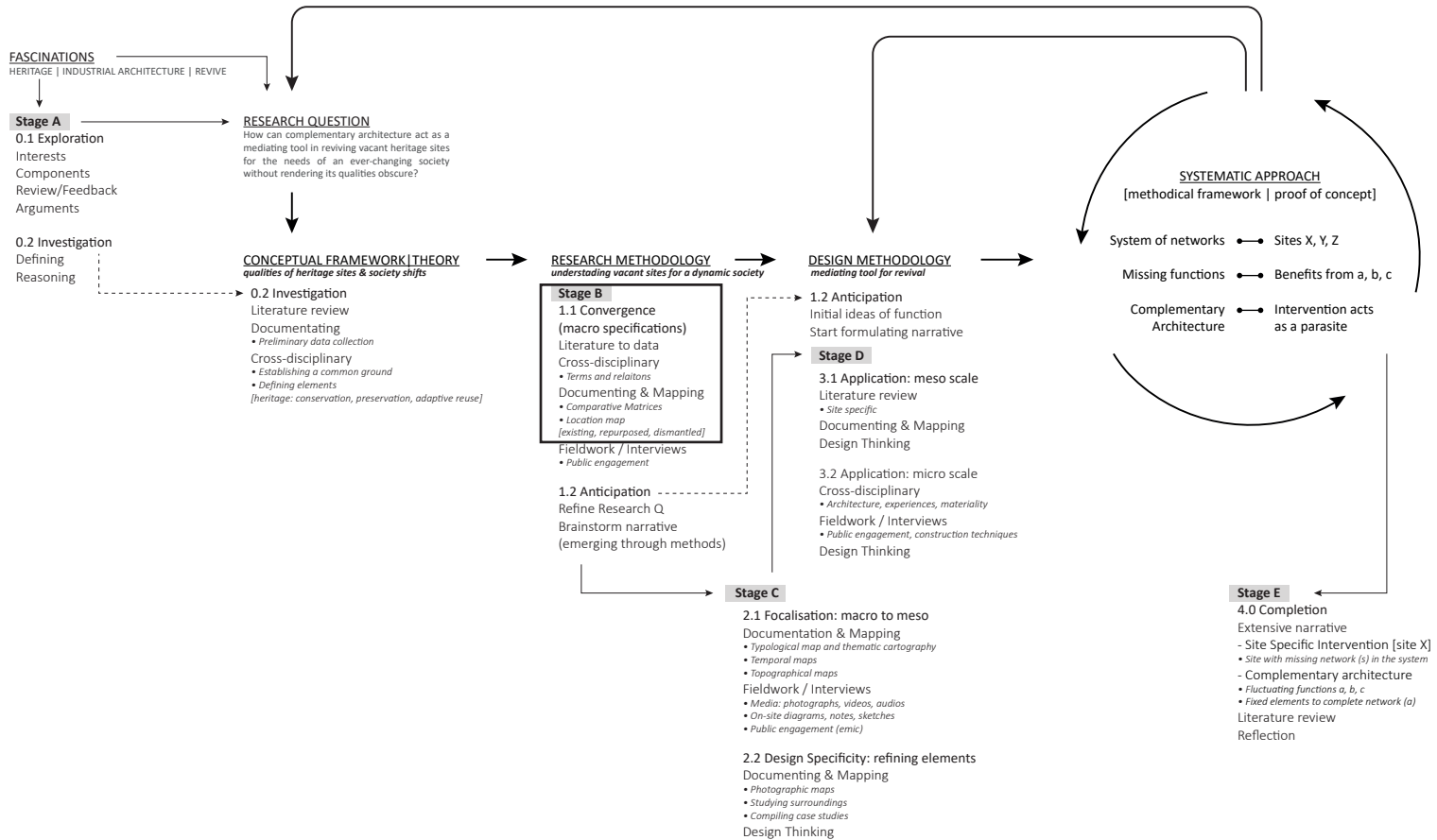
Source: BBC, National Grid

BBC

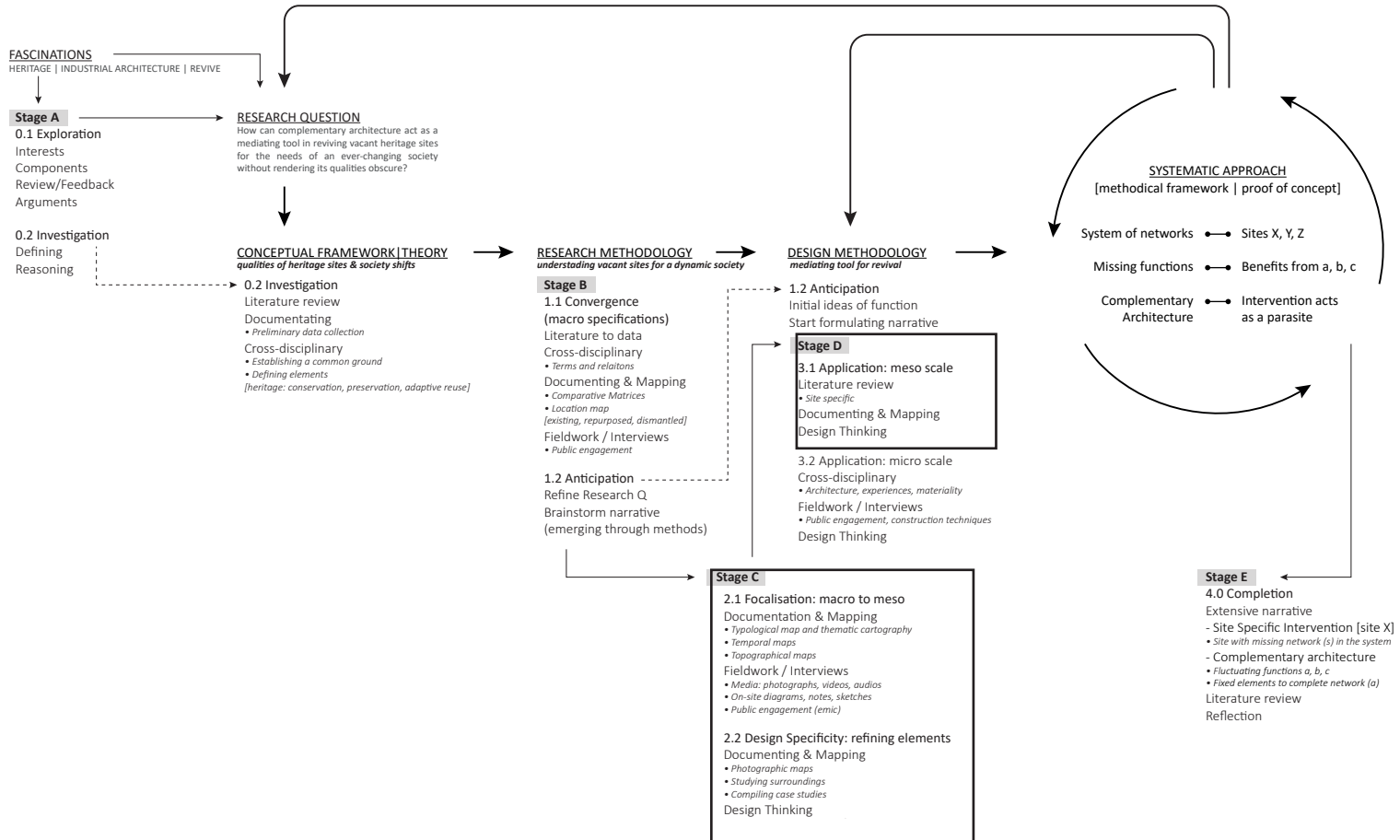
*"...only in vacuum lay the truly essential. [...] A vacuum is there for you to enter and fill up the full measure of your aesthetic emotion." (Okakura, 1906)*

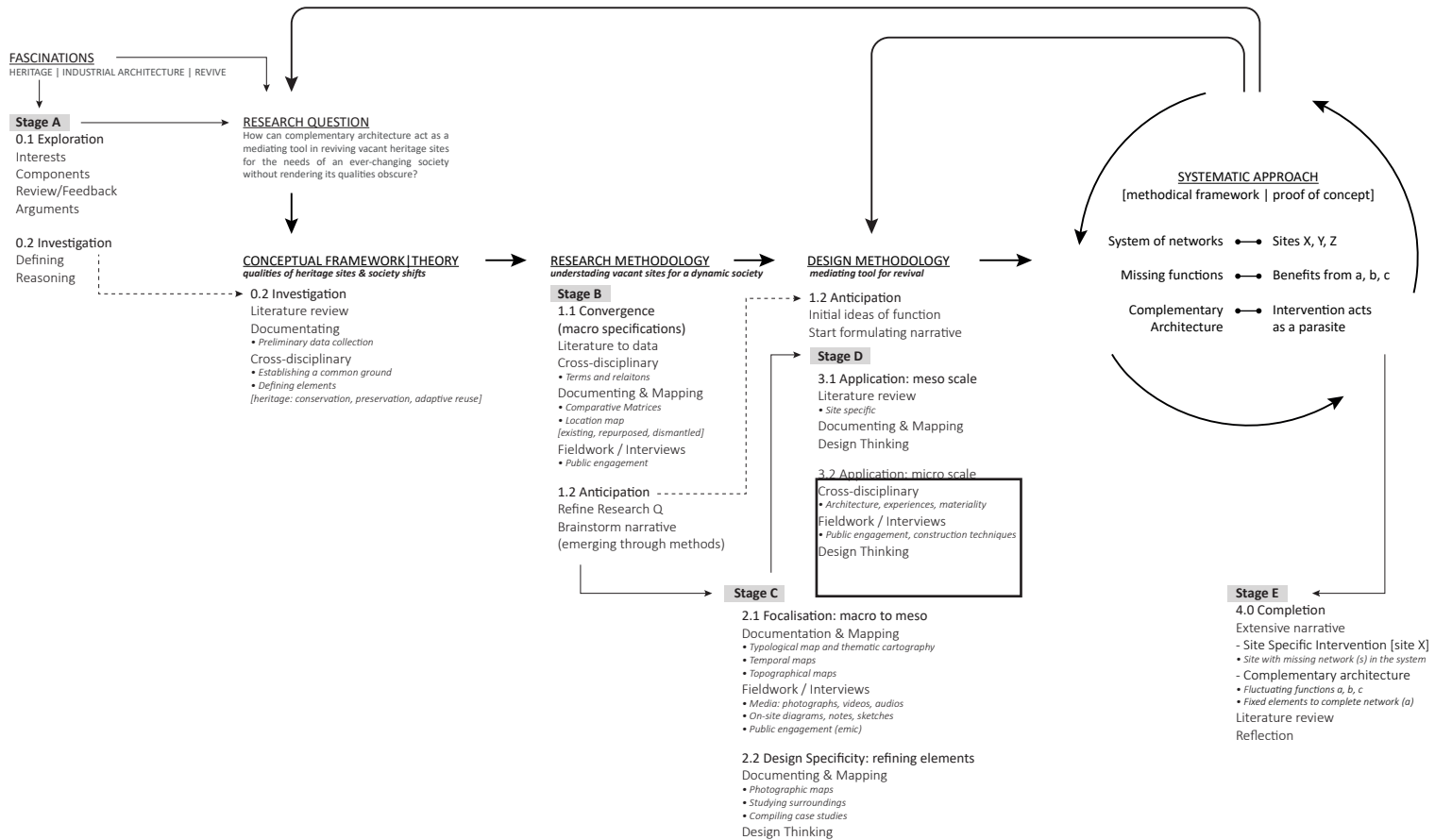


*“**etic** account is from the point of view of an observer who is outside the culture or activity in question, whereas the **emic** account is produced from within a culture” (Lucas, 2016)*









Location Map of existing, redeveloped, and dismantled gasholders of London

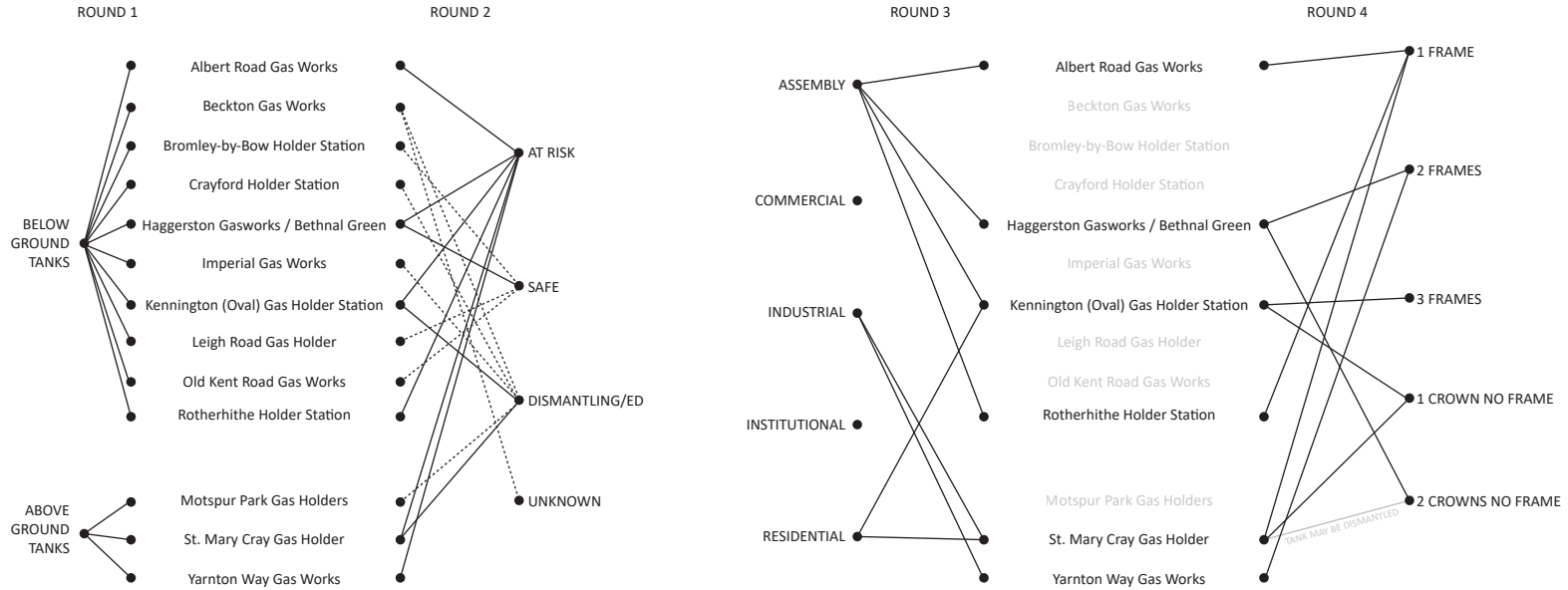


Location Map of existing gasholders (apparent frames of gasholders)





# Site Choice



St. Mary Cray Gas Holder

Not many busy amenities around, interventions on site can bring community closer. Multiple functions on multiple gasholders.

Rotherhithe Holder Station

Gasholder as a protagonist amongst existing assembly spaces, so attraction would not depend only on gasholder - complementary

Yarnton Way Gas Works

Awaken the site amongst industrial spaces. Using the two gasholder frames to provide various uses.

Haggerston Gasworks / Bethnal Green

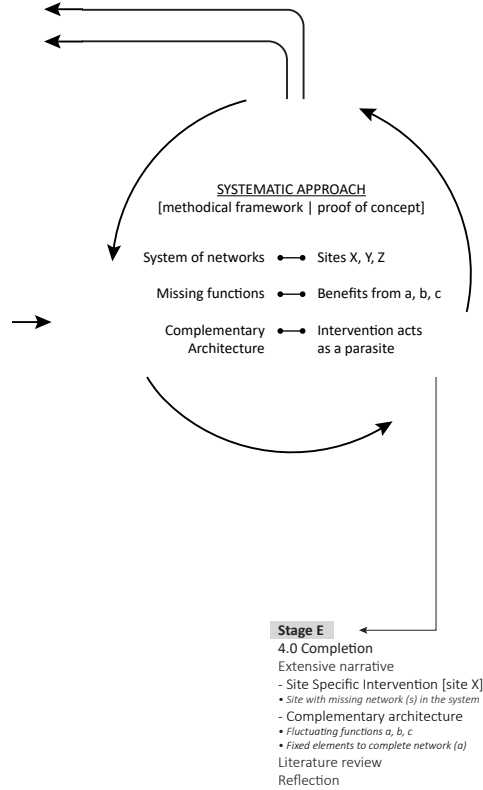
Already many amenities around (Oval Space venue), may be overwhelming to add more functions BUT since gasholders are at risk, investigate on an emic perspective

Kennington (Oval) Gas Holder Station

The redevelopment scheme put in place seems satisfactory BUT dismantling of 3 gasholders - investigate on an emic perspective

Albert Road Gas Works

Can act as a protagonist on site, supported by existing amenities.



Sites of Investigation





Sites of Investigation

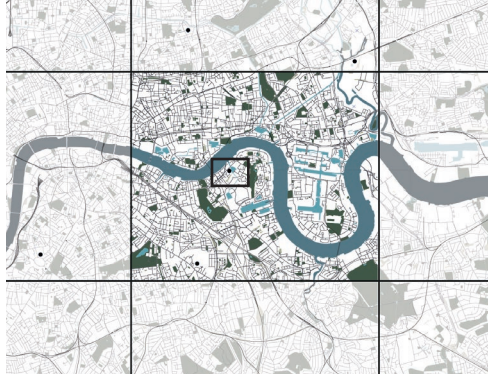






Sites of Investigation





remaining structures:

2 aboveground  
gasholders with frames

At risk of dismantling  
structure to develop into  
residential space

40 dwellings for social  
rent

39 dwellings for discount  
market rent

198 private dwellings

Residential surrounding gasholder

Assembly • Bacon's community sports centre (College  
Function & Event Hall, Football club/terrain Tennis court)  
• Event Venue (Printworks London, Broadwick Live event  
management company) • Bow Arts Studio • Fishing pier  
• Parks

Commercial by the dock • Cafe, Restaurant • Decathlon  
Sports store

Institutional • Alfred Salter Primary School • Bacon's  
College • Canada Water Library

Sites of Investigation





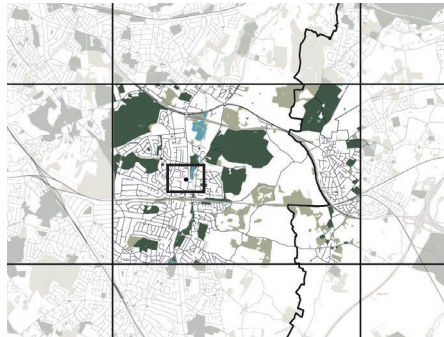
Commercial related to industrial sector •  
supermarket • construction accessories  
•plumbing •metals  
Industrial • car service • industria equipment  
supplier •construction company •food supplier  
Institutional • school + facilities (sports, green  
space) •Church •pharmacy •consultant offices  
Residential (east)



Sites of Investigation







Assembly • park • golf course • starbucks café • a few restaurants  
• trampoline park indoor • small village hall (for community events)  
Commercial • 4 supermarkets • stores construction (flooring, tile, electronics, kitchen, plumbing)  
Industrial • waste management • distribution service • solar energy company • car inspection • building restoration services  
Institutional • 2 primary schools • church

- SGN offices
- SGN Depot
- SGN Workshop

Residential around public area + residential North

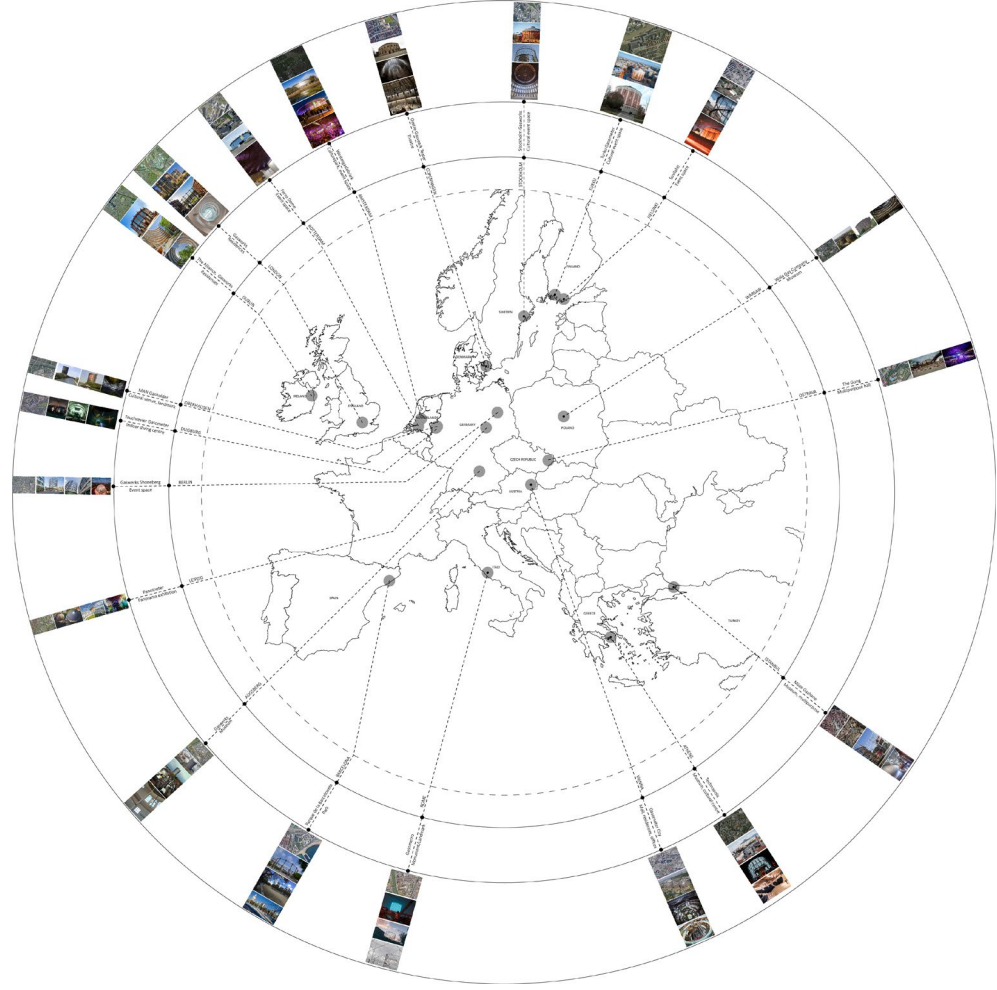
remaining structures:

2 aboveground gasholders  
one with frames, one without (because it was spiral) + 1 dismantled (not sure about tank)

No5: spiral guided  
No4: frame guided  
No3: cutler patent frame guided (dismantled)

OTHER REMAINS:  
modern regional office

1 dismantled, 2 at risk





*St. Mary Cray Holder 1951, settlement of 300 travellers living in Corke Meadow Kent. Bert Hardy*

**Intangible (use)**

What kind of events and activities would you like to see held within the space (temporary or permanent, interactive or standalone)?

What kind of atmosphere / character would you prefer in and around the area?

**Tangible (objects)**

What type of furniture / equipment would you want to have in the space?

What type of art would you like to see in the space?

**Targets**

Who do you want to see using these spaces (public vs private)?

What type of species (taxonomy) should be included / allowed to use the space?

## **Functional Intention**

Breathable space, (event/performance space) with a visible reminder of the identity of the gasholders (mobile exhibition in multiple sites?). Regeneration of industrial past for community.

Minimal intervention in order to give the users the possibility to take over the space, use it as they want? Still needs a managing team and an organised space.

Flexible multipurpose space. Green area accompanied by a companion function

- recreational park (non-invasive permanent) + market (temporary)
- café (permanent) + bookstore stands (temporary)
- exhibition space (flexible permanent) + catering/seating (temporary)

## **(Near) Future Inquiries**

Will my concept be a *moving* intervention, like a parasite popping up in different gasholders? Will it be a stand-alone structure or a protagonist amidst multiple amenities?

Physicality will change but identity can remain with sensitive measures.

Can I bring back the ascending/descending feature (breathing structure) of the vessel cylinders? Does the mechanism still work?

Delays/bottlenecks:

Accessibility of site – closed to the public, contamination?

No access to some archives (National Grid)