11.307 Beijing Urban Design Studio
Summer 2008

innovating industry

World Expo + Skills District for the 21st century

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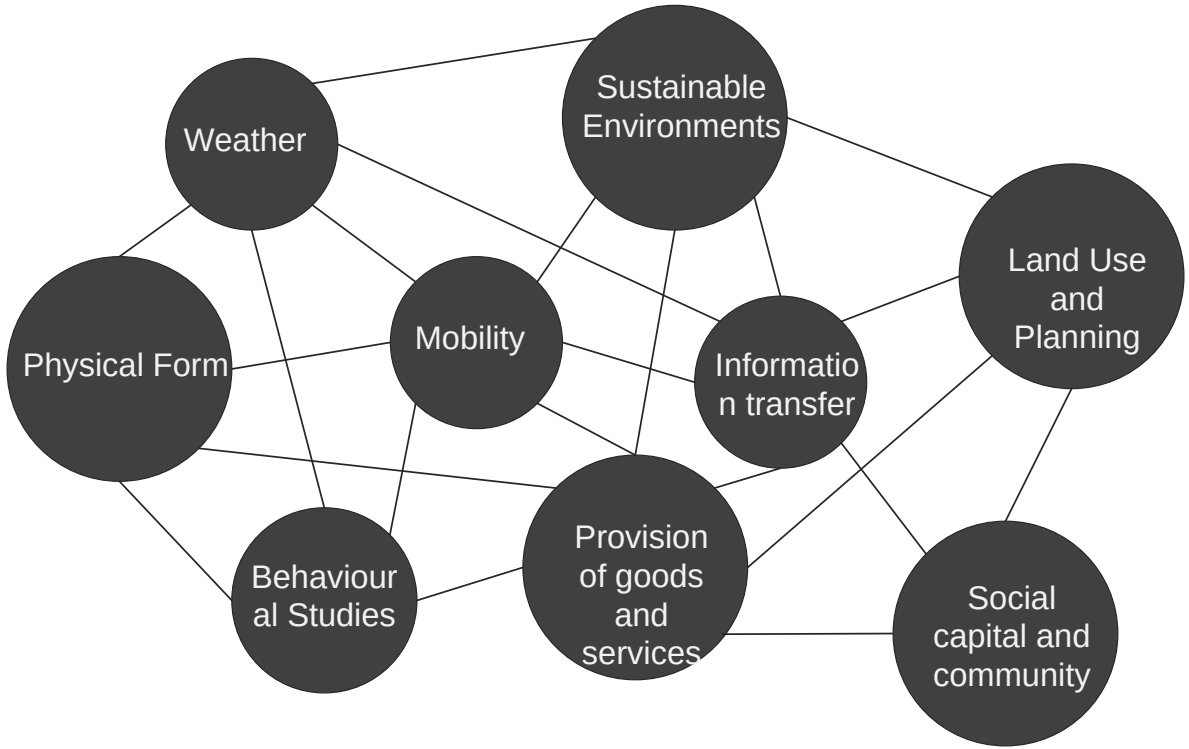
Design Concepts



In response to the dynamism of the location of the site our design concept revolves around the following ideas:

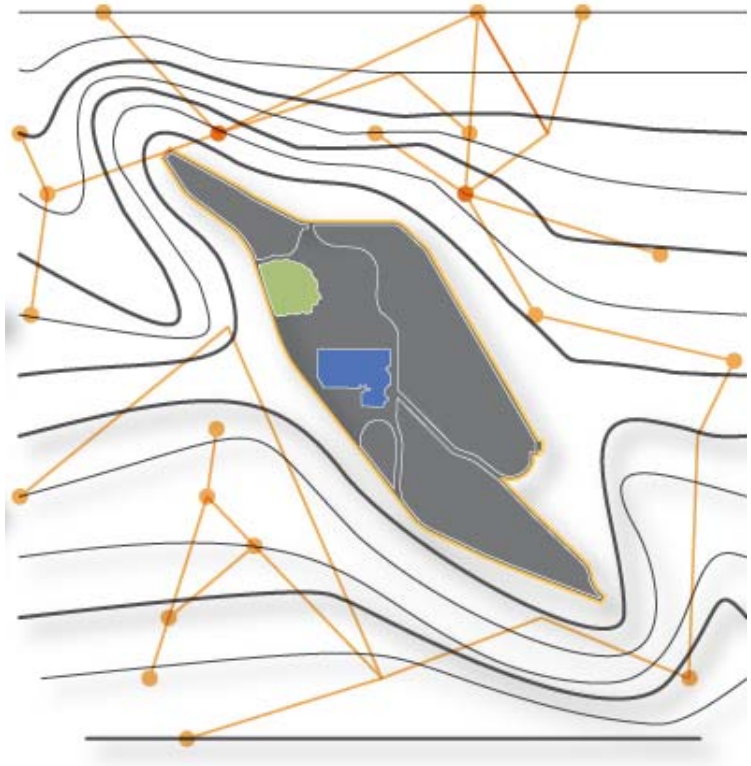
- **Developing a new conception of value in real estate development through iterative planning.**

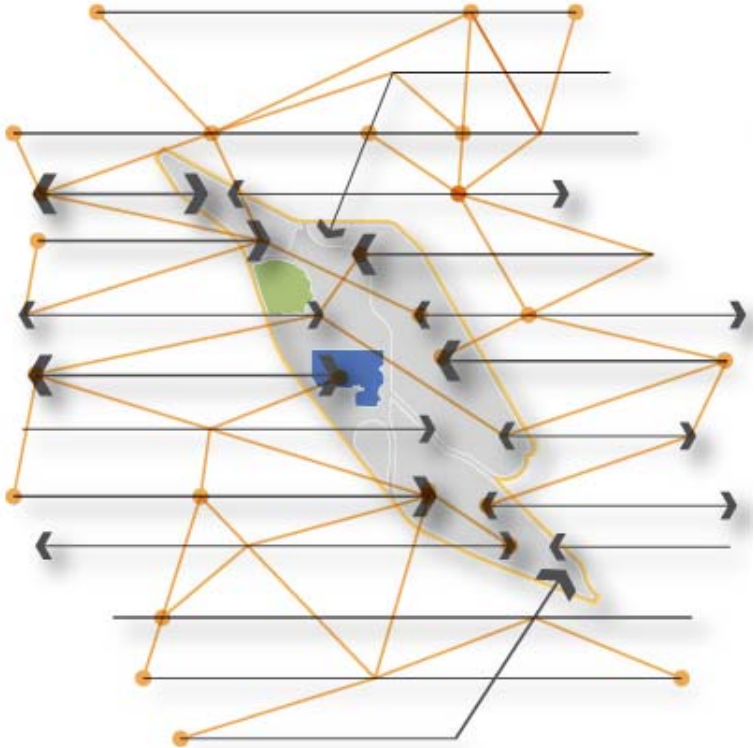
- Examining the city as a dynamic socio-spatial, economic and political network rather than a static conception of built form.

- Questioning the determinism of large scale master planning and exploring how urban design can become an adaptable process that responds to a rapidly changing urban context.

- Re-imaging industrial processes and providing a dynamic program structure that supports this.

Principle



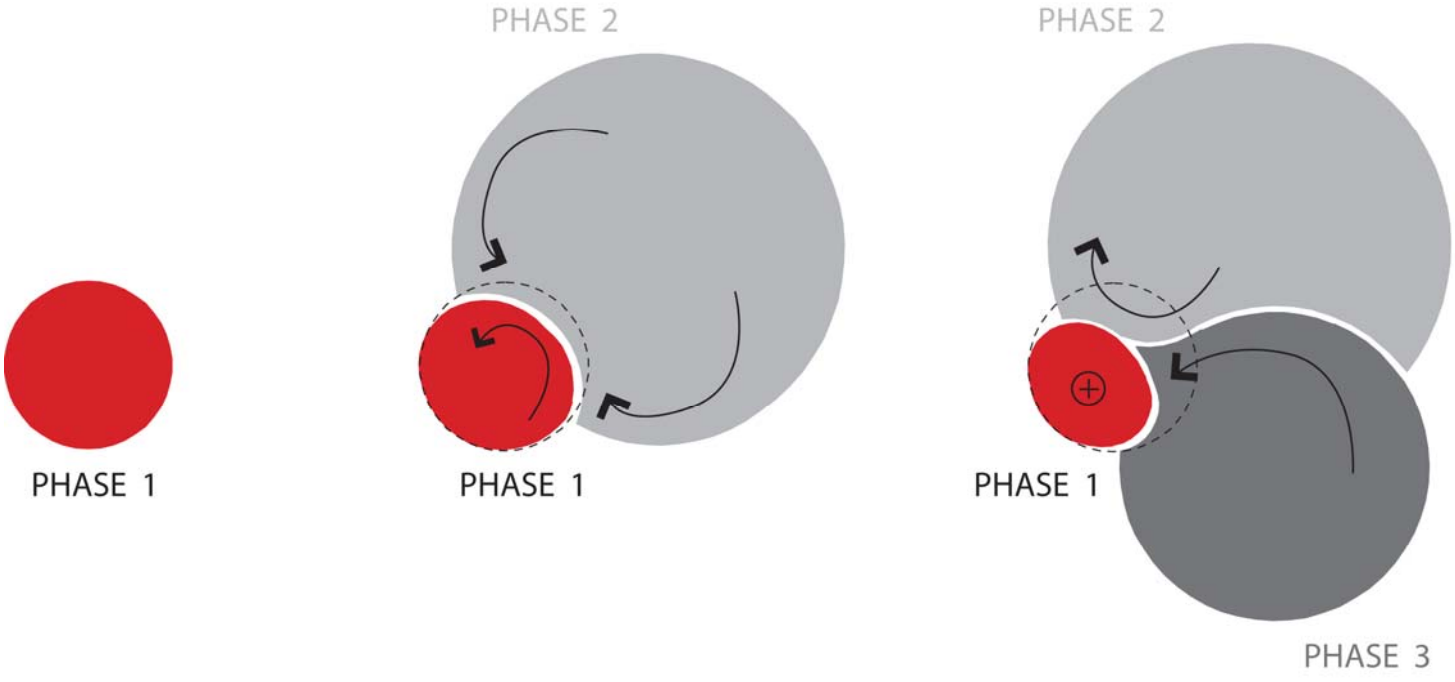


Closed System / Open Network

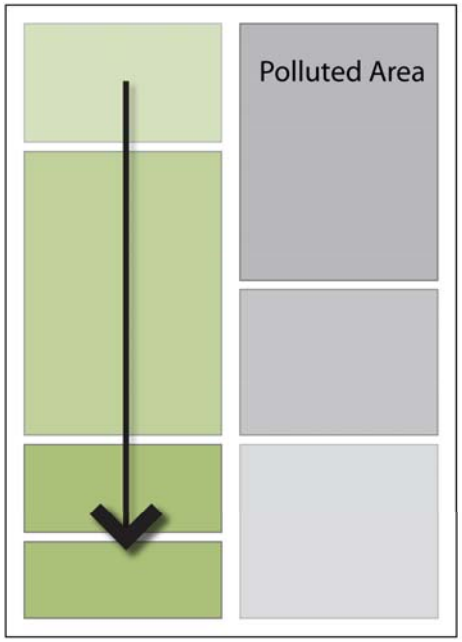
- The city is an ever-changing interrelated network. Until now, the Shougang site has been a closed system whose boundaries divide it from the complex network that surrounds it.
- Through this project, we are interested in how we can strategically re-thread the Shougang site back into its surrounding dynamic network over a number of years.

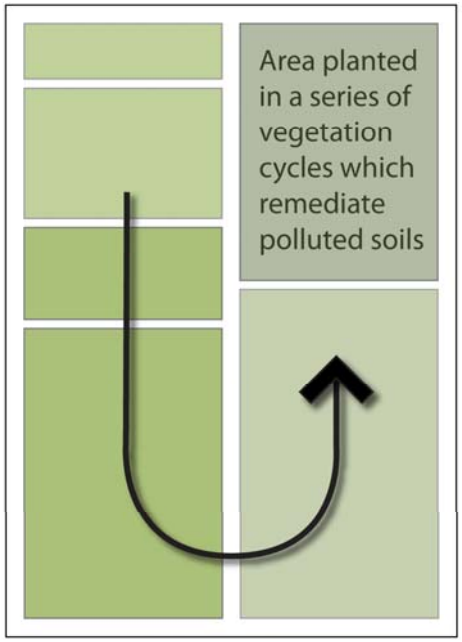
Time in Urban Design & Dynamic Staging

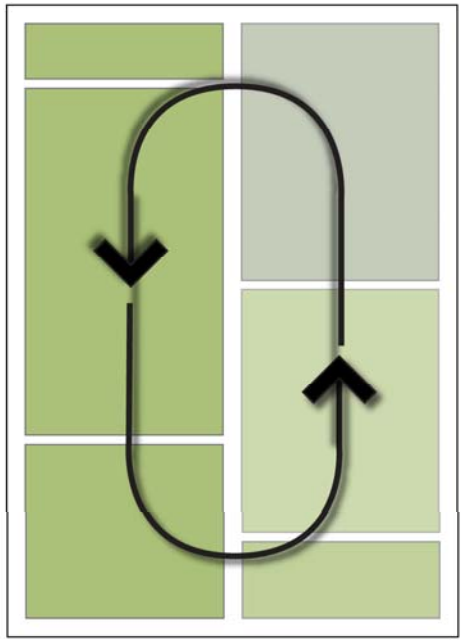
- Develop the site in a number of stages - each move is created only once the impact of the previous stages and their relationship with the surrounding urban networks is understood.



Time in Urban Design & Dynamic Staging





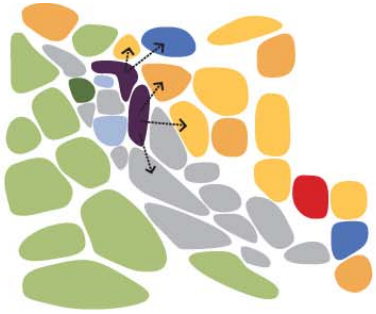


- Similar to the concept of *Rotational Farming* (where a piece of land is subjected to various growing cycles in order to maximize the fertility of the soil for the final crop) we see that different areas of the site may be in cycles of remediation while other places are being developed. This has the potential to provide jobs across the site and does not mean that one area is left dormant until it is time for it to be developed.

Feedback Loops

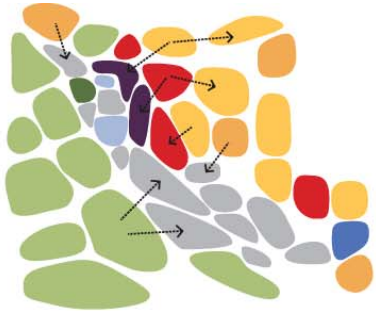
PHASE 0

new blank sites between
green belt and urban



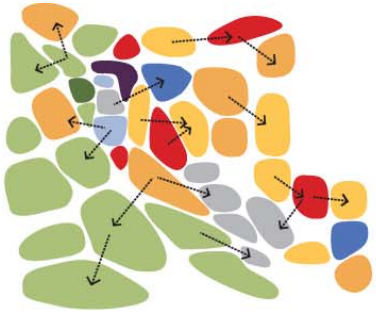
PHASE 1

a “dynamo”
to initialize the reaction



PHASE 2

feedback
from the urban

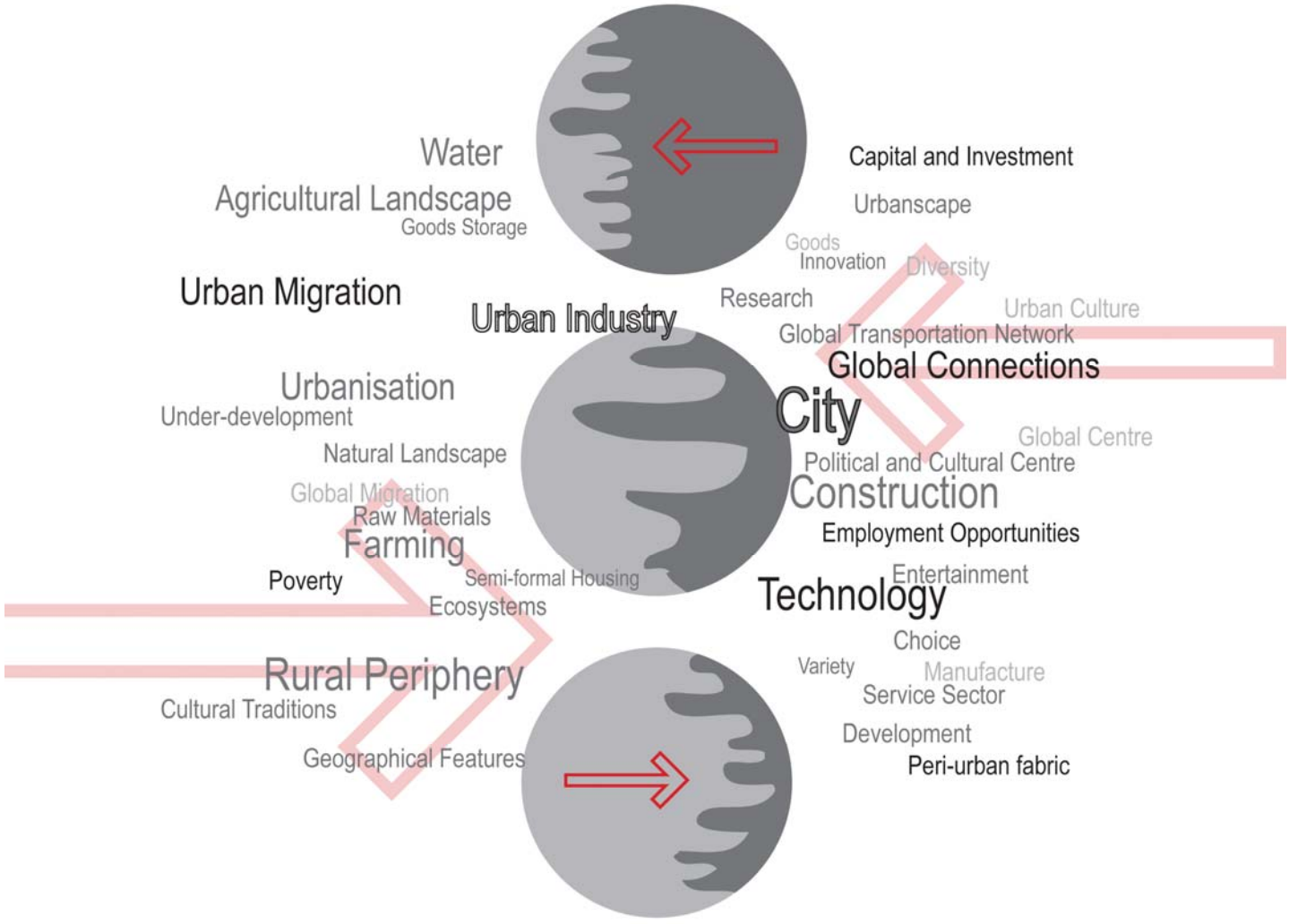


PHASE 3

continuous feedback loops
and interlocking reaction

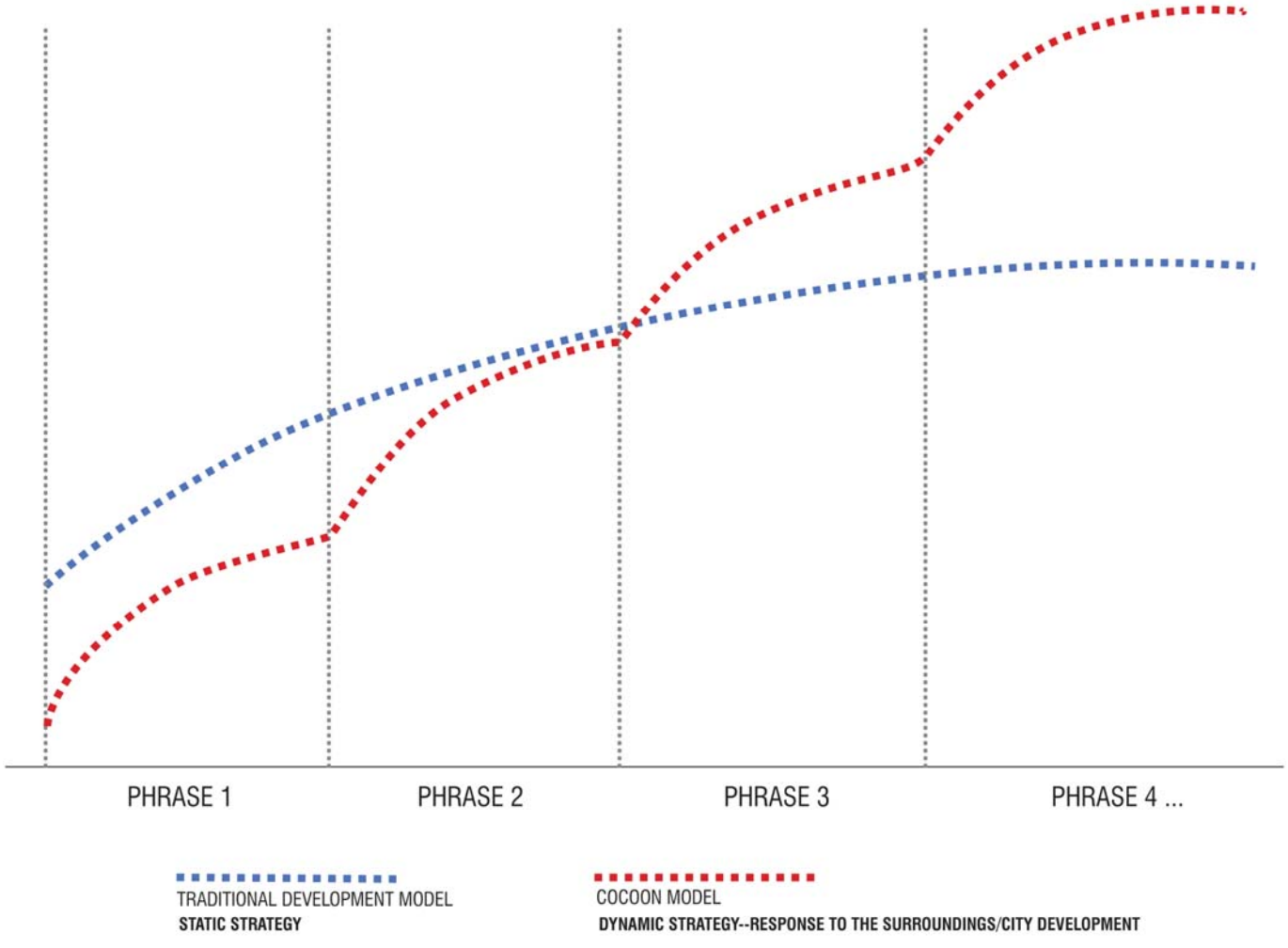
PHASE n

dynamic balance



Peripheries

- We recognize that this site contains a number of peripheries – both physical and conceptual. Rather than these peripheries being places of real or perceived socio-spatial, political, economic and industrial divides; we see these edges as opportunities for the dynamic interweaving of multiple networks. This concept applies on a large site-scale as well as within the site itself and should affect programmatic, social, formal and economic decisions.

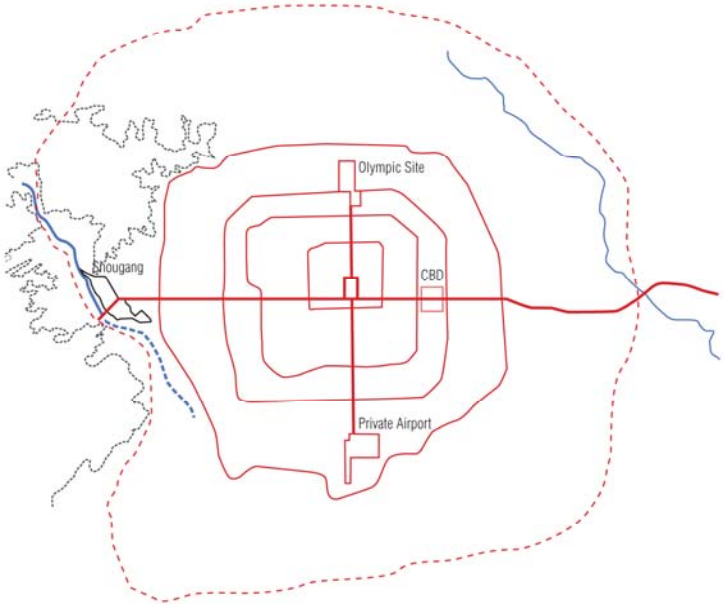


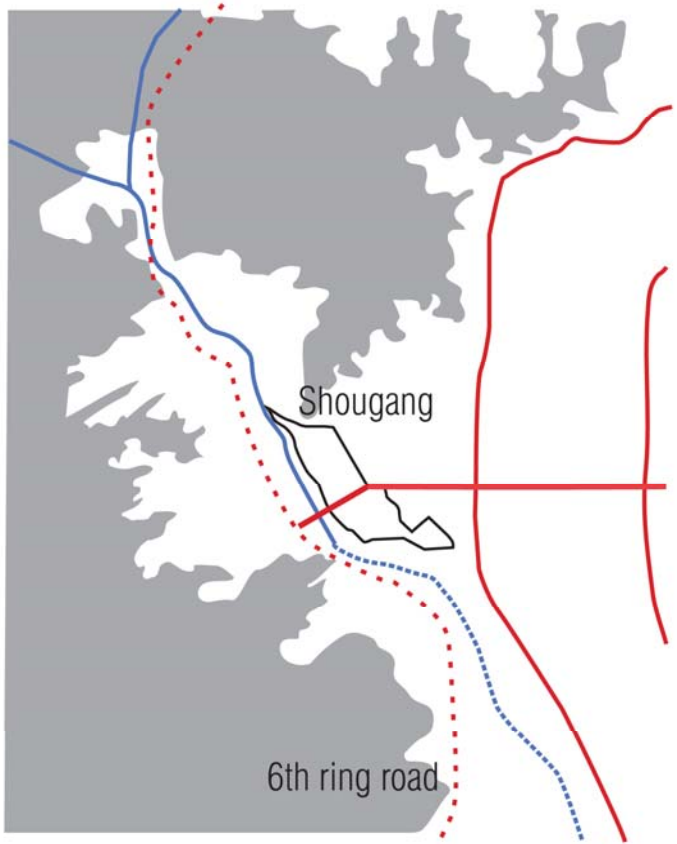
Restructuring the idea of 'value' in Real Estate Development – the 'both/and' condition

- *Value* in real estate development has often been focused on quick monetary gain. However, through staging this project and incorporating feedback mechanisms to guide design over time, we can begin to develop value in many more areas including: the building of social capital, ensuring public amenity and the continued rehabilitation of the site.
- We also hope to prove that through working in this way, the long-term monetary gains will be greater than short-term profits.

First moves

Site Context





Site Axis

- End the east west axis at the Shougang site, but continue the connection through to the sixth ring road.
- Finishing the axis in this way:
  - Reinforces the Shougang site as the traditional edge of Beijing
  - Allows the preservation of the urban village fabric at the axis terminus

First moves

Phasing

World Industrial-Innova Exposition

site catalyst

Phase 1

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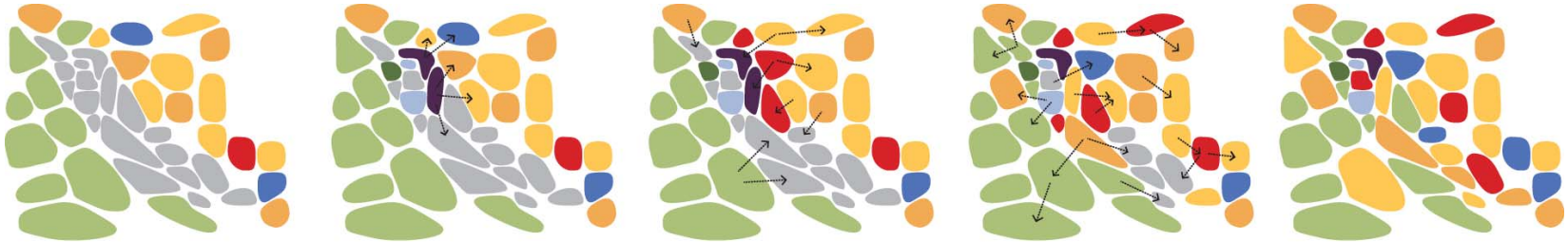
Beijing Urban Design Studio

Phase 1

World Industrial-Innovation Exposition

site catalyst

TsinghuaMIT
Beijing Urban Design Studio



	Phase 1	Phase 2	Phase 3	Phase 4	Phase n
Industrial	Industrial Expo	Skills Embassies	Industrial Incubator	21st Century Skills District	[Responsive Over Time] 21st Century Skills District
Commercial	Commercial	Research Institute	Private Development	Commercial	
Housing	Temoporary Housing	Permanent Housing			
Amenity	River Connection		Public Amenity		
Remediation	Site Remediation		Site Remediation		

Remediation used as a spatial organising principle

Principles used in spatial organisation and design

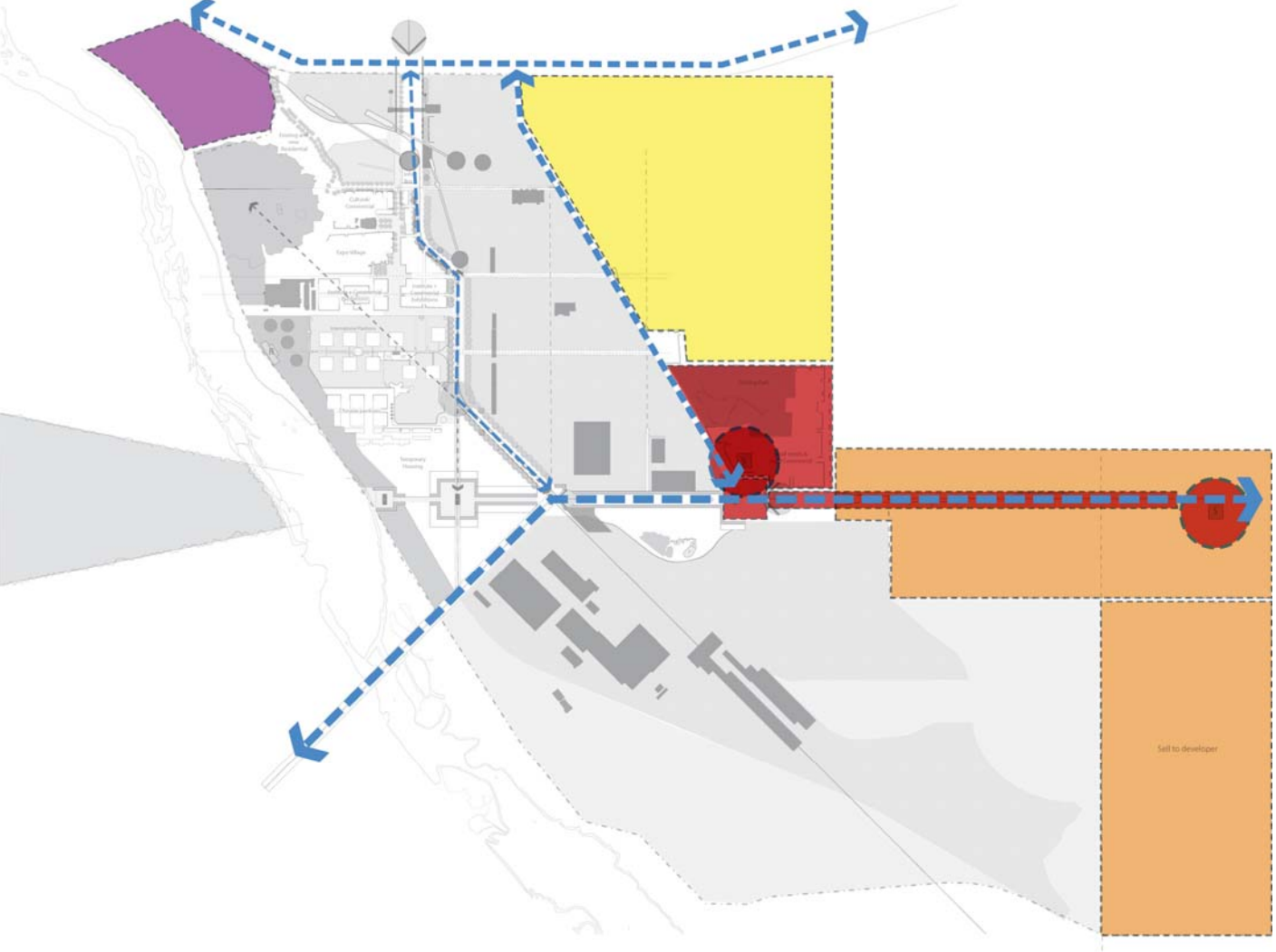
- Rethreading Shougang into its surrounding network: peripheries, axes and connections
- Reaction to previous development phases and predicted development conditions outside of the Shougang Site boundary
- Cycles of remediation
- New conceptions of value in real estate: ensuring that there is social as well as economic capital generated at each stage of the project

Phase 1:
Industrial Innovation Expo

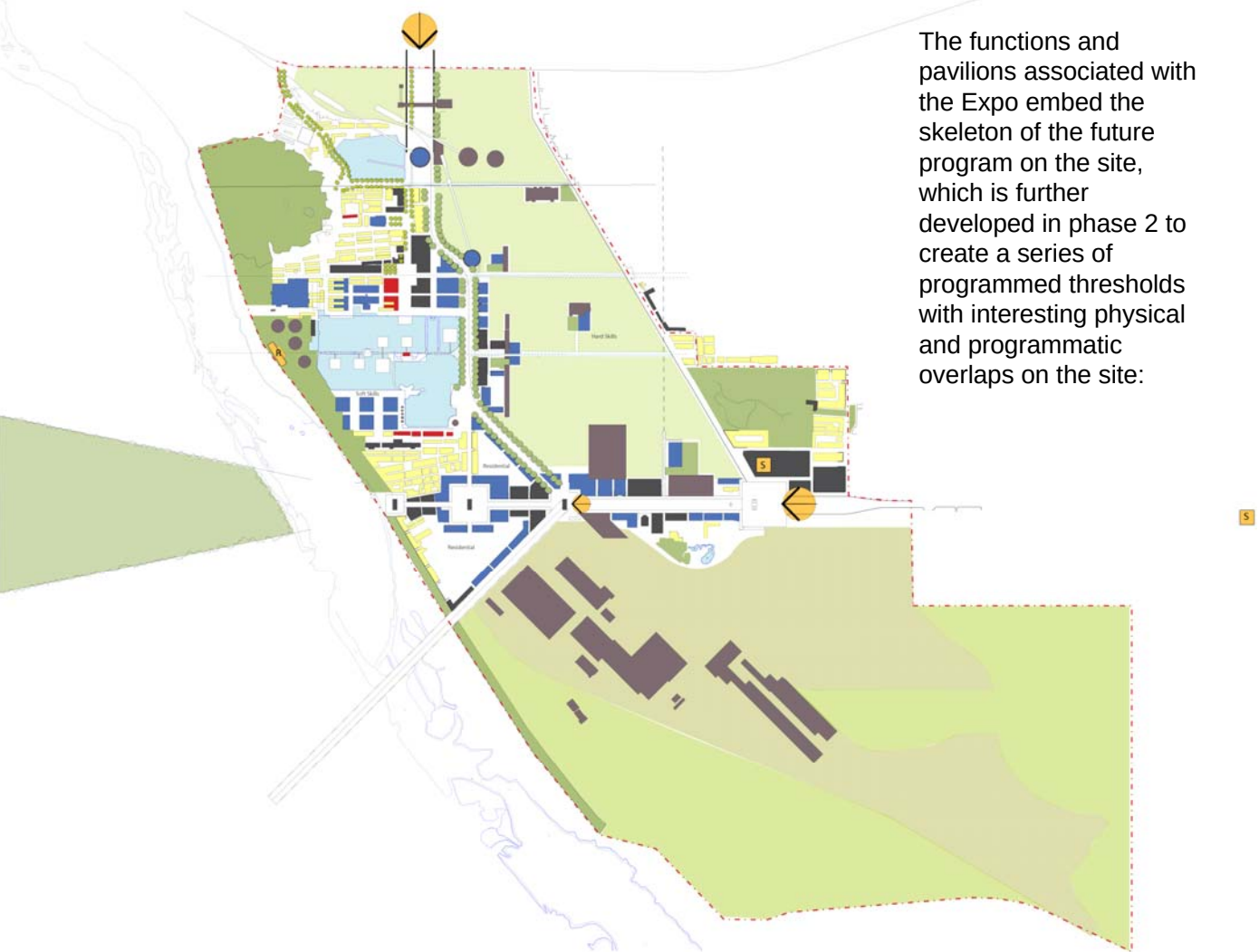
- The finishing of the east-west axis at our site and diverting the east-west axis
- A layering of themed thresholds leading up to the termination point of the East-West Axis
- A new gateway in the north of the site that directs traffic past furnace no.1
- New subway and rail stations, as well as internal light-rail and bus systems.
- Creation of a hierarchy of roads, with pedestrian-focused corridors identified within the Expo area.
- Initial Remediation
- Revealing the water links between the two lake areas.
- Irrigation channels formally establish connections into the surrounding urban fabric

The Expo program gives us the ability to not only create access and mobility connections across the site but also to improve public amenity and make a bold statement at the end of the East-West Axis. In relation to our organizing principles this has resulted in:


Cultural/
Commercial
Expo Village
Institute + Commercial Exhibitions
Institute + Commercial Exhibitions
International Pavilions
R
Chinese pavilions
Temporary Housing
Existing Park
S
Small Hotels & Light Commercial



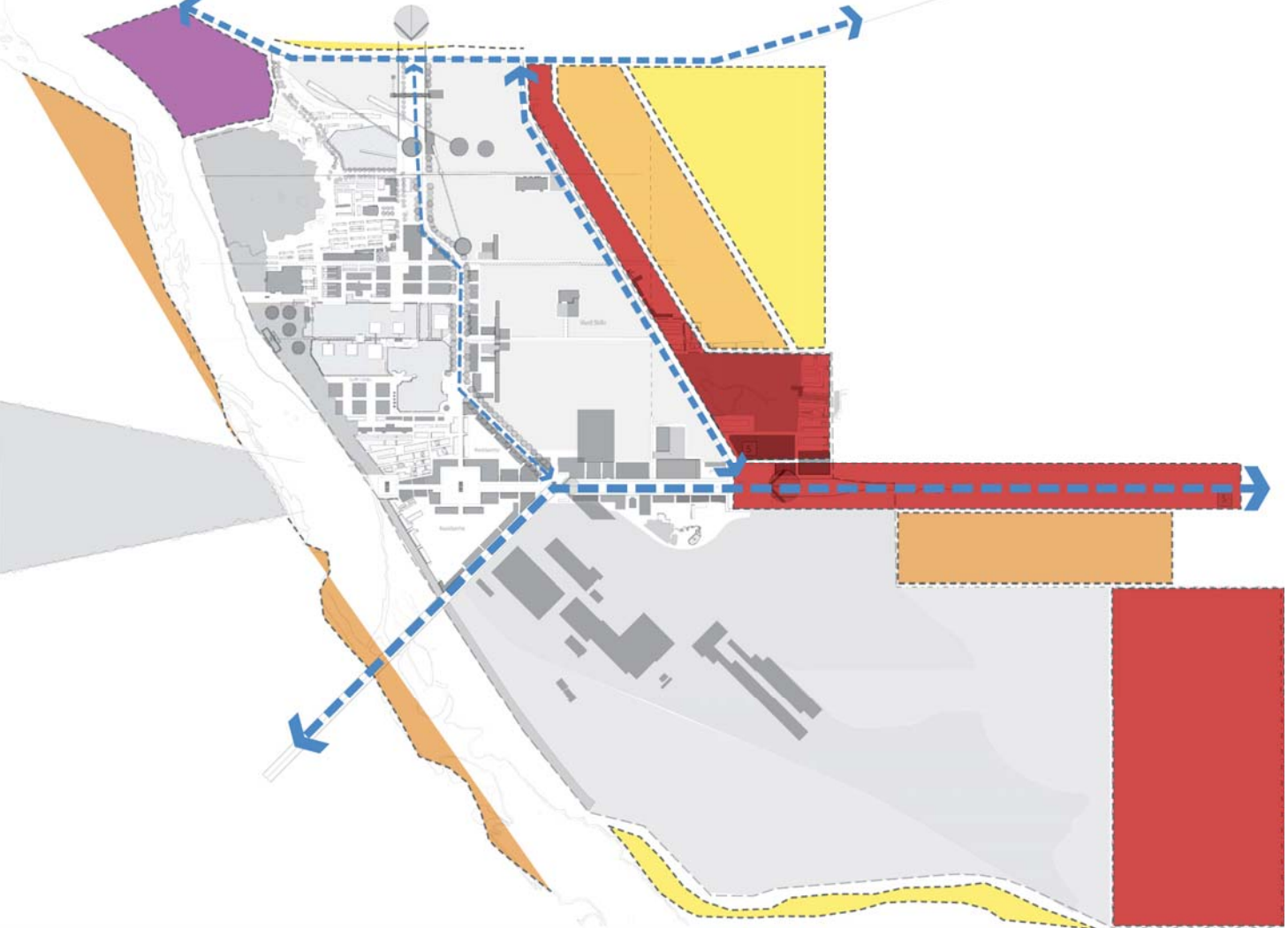
Reaction: Phase 1



The functions and pavilions associated with the Expo embed the skeleton of the future program on the site, which is further developed in phase 2 to create a series of programmed thresholds with interesting physical and programmatic overlaps on the site:

Phase 2:
Skills Embassies

- Three distinct districts are created:
  - industrial innovation think tank
  - Platform recreation areas
  - Skills embassies
- This is supplemented by the creation of several new “hard skills” training and lecturing facilities within the protected industrial structures (northern remediation area).
- The housing areas for the Expo are densified
- The north-west edge of the large lake is eroded to increase access to the water.
- The area to the south of the east-west axis enters another cycle of remediation.
- Administrative structures are developed along the east-west axis.



Reaction: Phase 2

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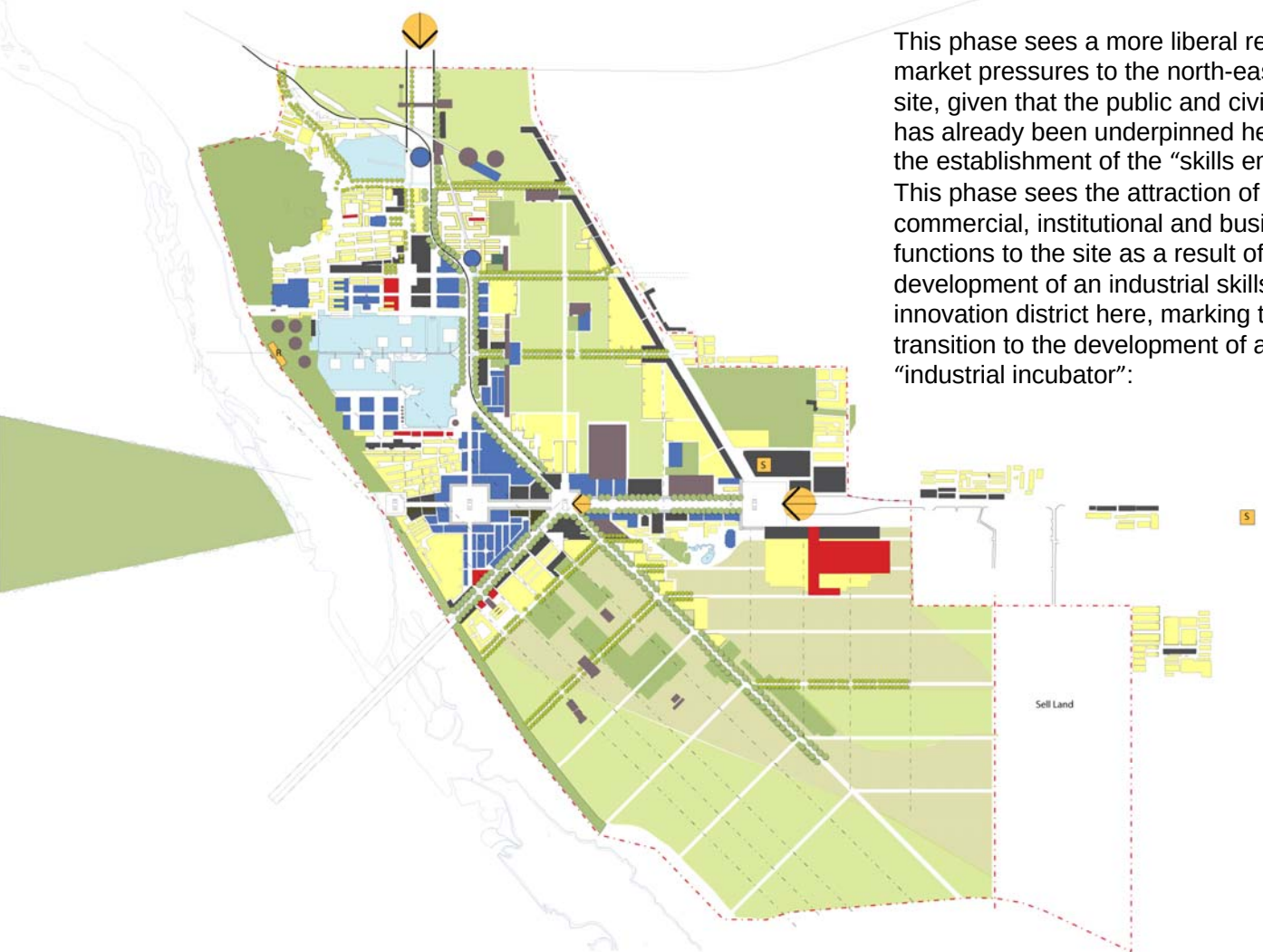
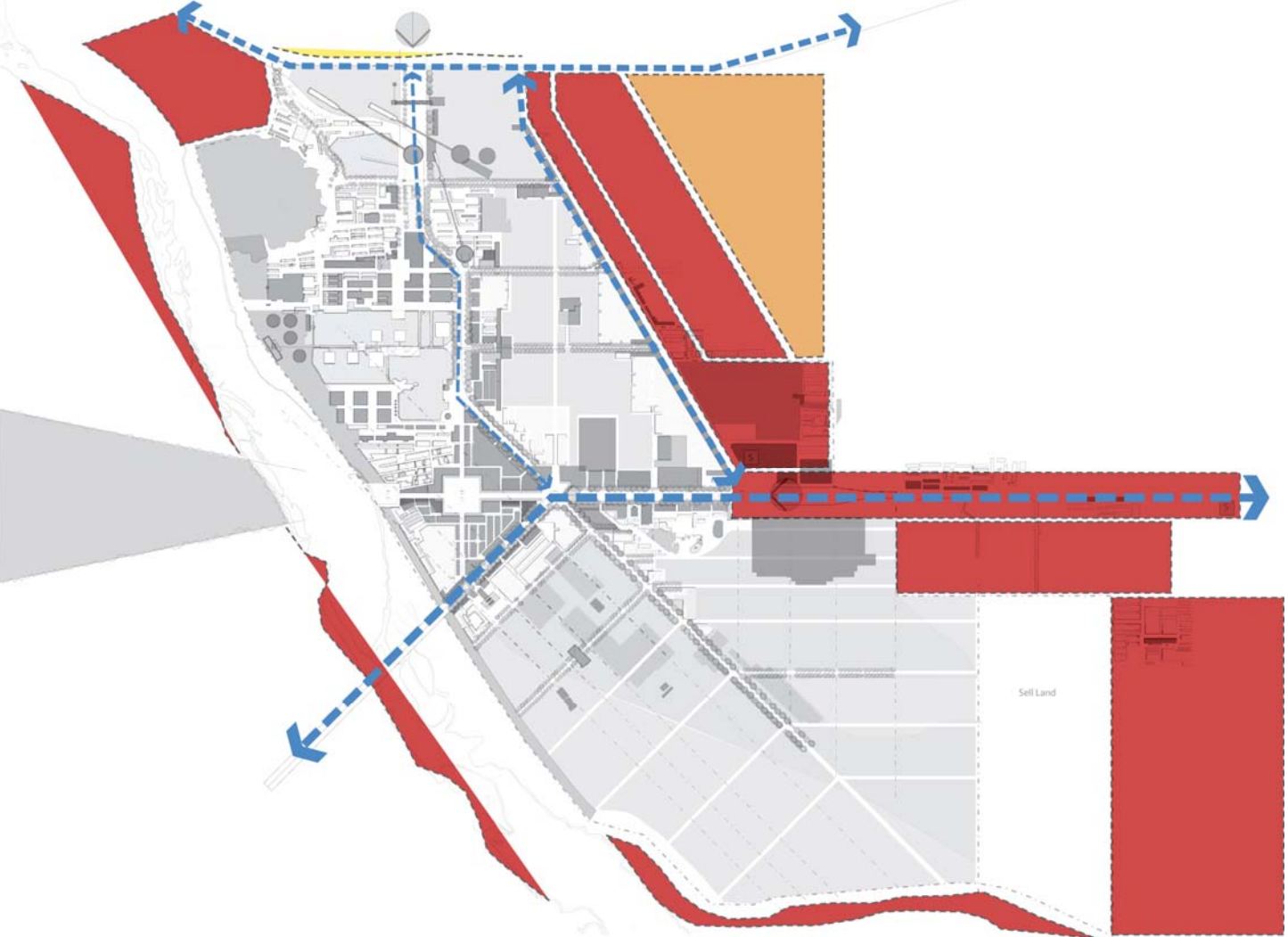


This phase sees a more liberal response to market pressures to the north-east of the site, given that the public and civic structure has already been underpinned here through the establishment of the “skills embassies”. This phase sees the attraction of more commercial, institutional and business functions to the site as a result of the development of an industrial skills and innovation district here, marking the transition to the development of an “industrial incubator”:

Phase 3:
Building on remediation

- A commercial and mixed-use edge is developed along the north-eastern edge of the site,
- Housing is further developed along the central axis of the site, and into the north-eastern section, in order to house the developing community in the area. This development begins to formalize the connections across the site and into the neighboring movement/grid structures. However, a central swath of green remediation space remains at this stage.
- The fabric along the main axis and east-west bridge connection is further developed with housing, commercial and mixed-use fabric.
- The large warehouses/steel-rolling plants to the south of the site are removed and their



Reaction Phase 3

The north-eastern part of the site is further densified, while the southern part begins to be more intensively developed:

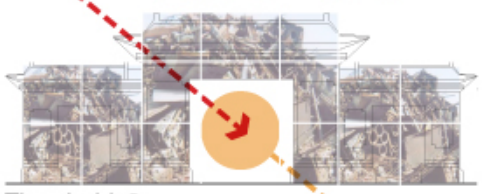
Phase 4: Consolidation

- Housing and commercial/mixed-use structures are infilled around the “skills embassies”.
- A locally-scaled green corridor is established through the site
- Intensive housing development and supporting commercial/ mixed-use
- Paths and connections are established across the southern half of the site
- Connections to the river/parkland are also reinforced.
- The crossing of two grid systems, which was a historic function of the

Thresholds

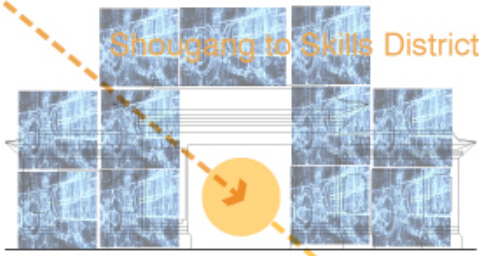
Threshold_1
Preserve Shougang Gate

Beijing to Shougang



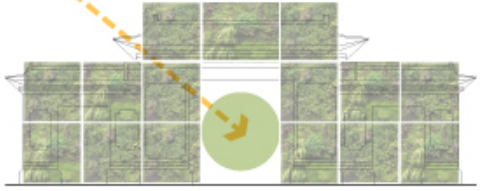
Threshold_2
“Remediation Gate”

Shougang to Skills District

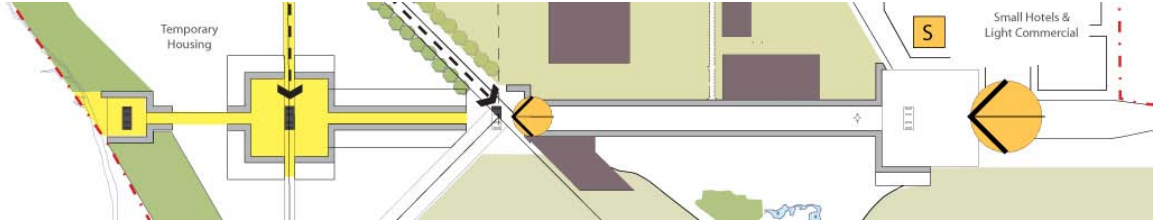


Threshold_3
“Digital Feedback Gate”

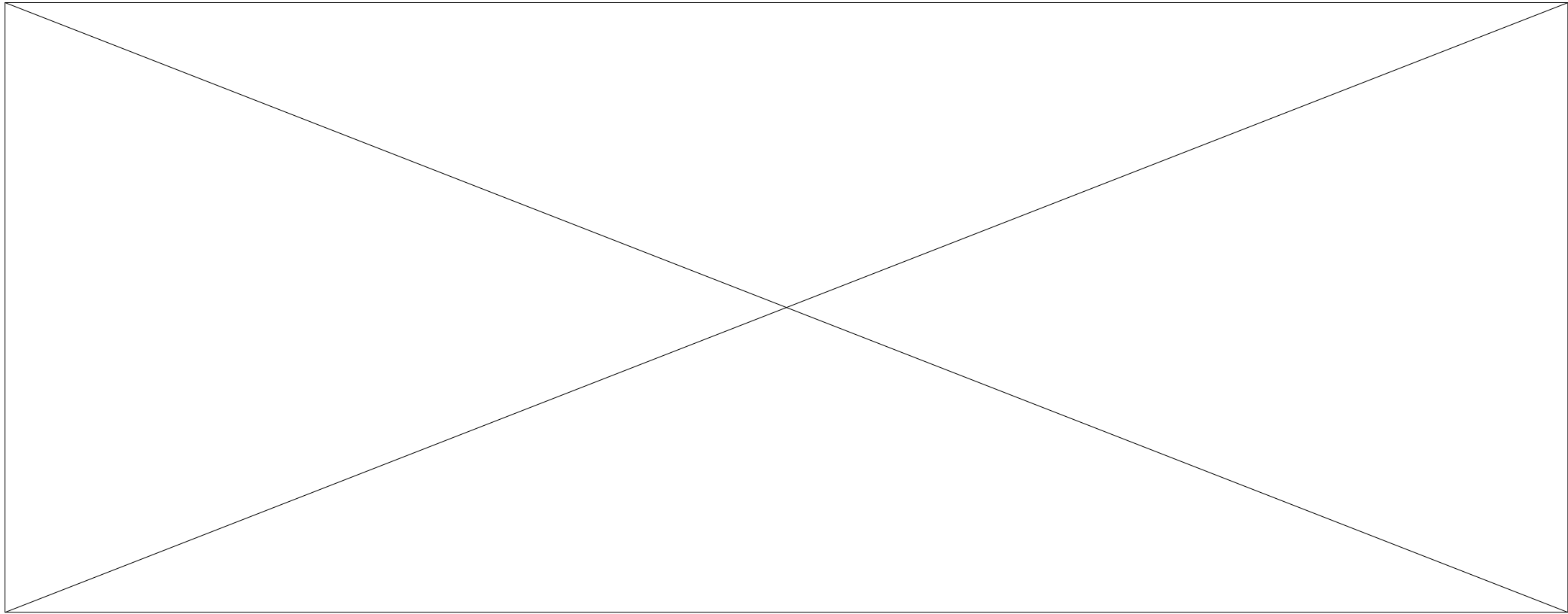
Skills District to Peri-Urban



Threshold_4
“Natural Gate”



Site Sections



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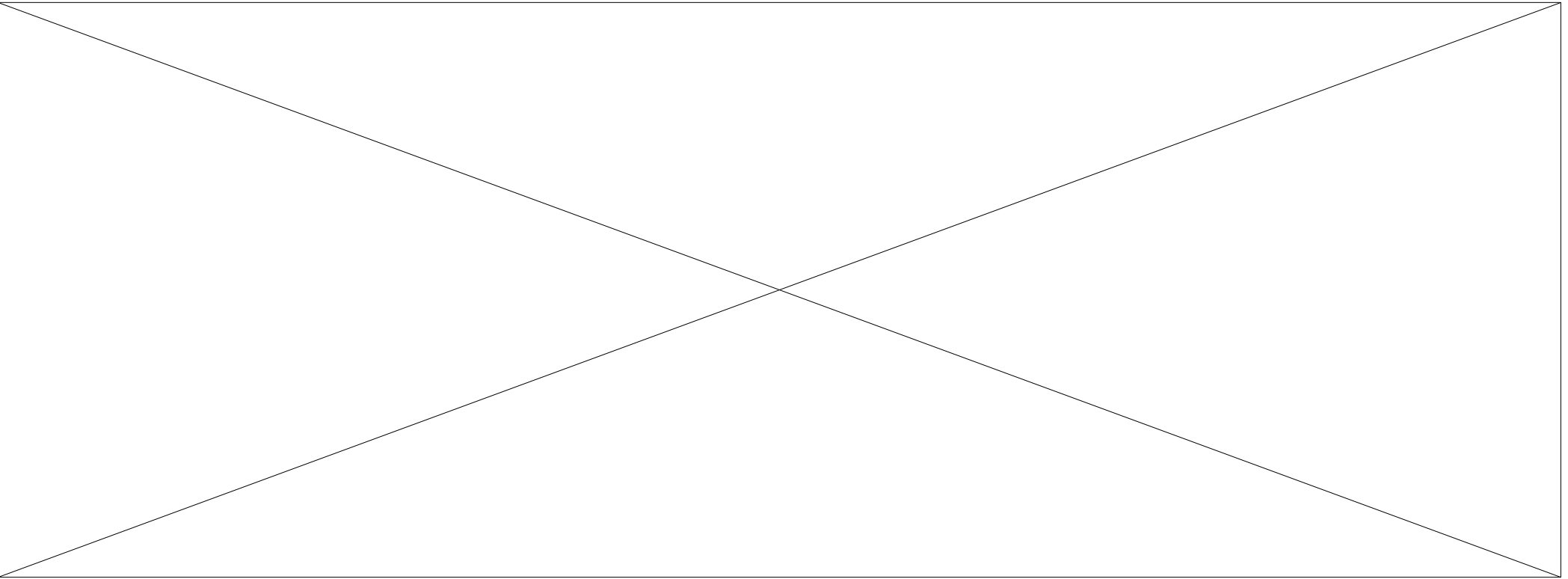
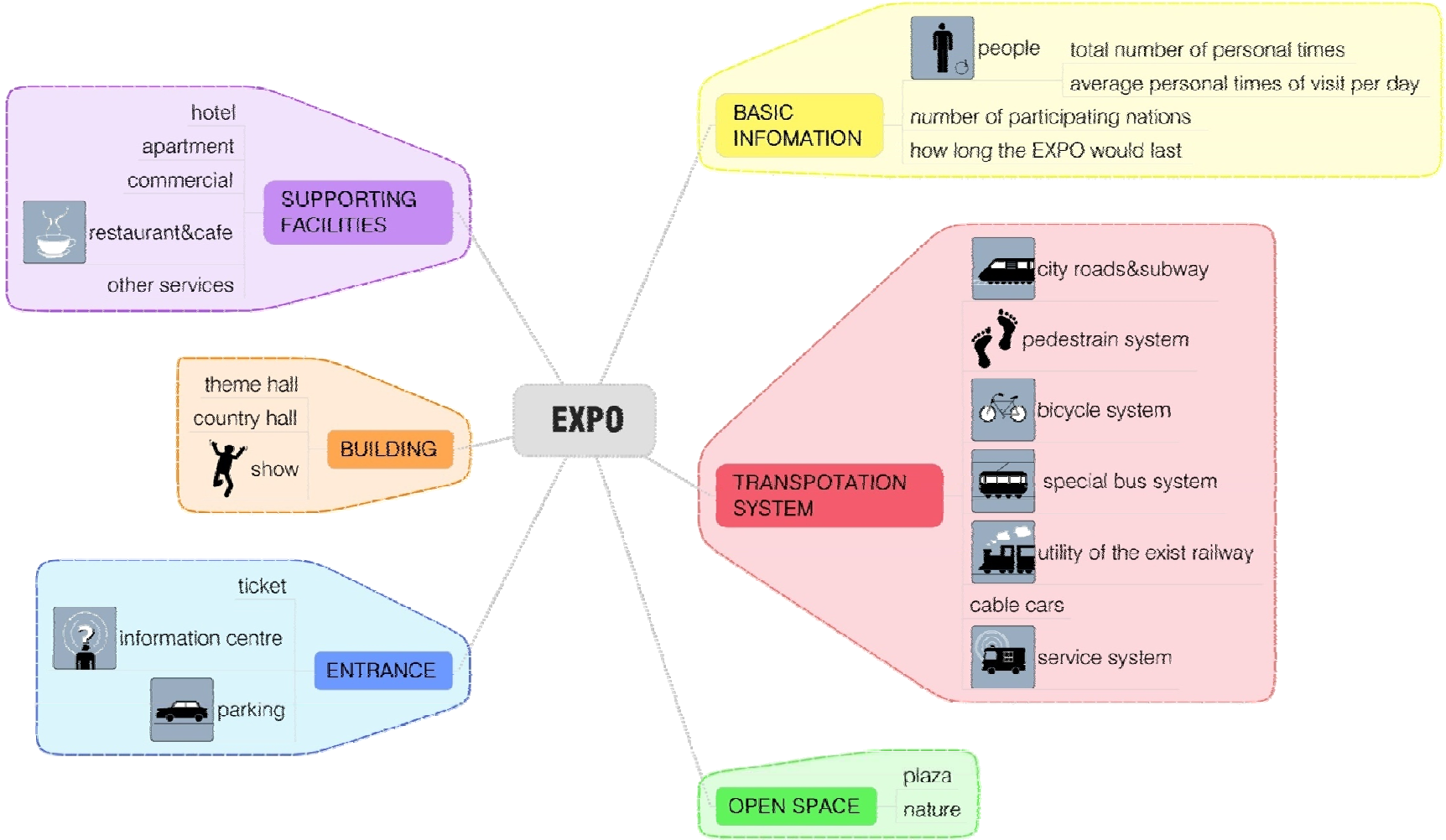


EXPO

CONSIDERATION OF EXPO



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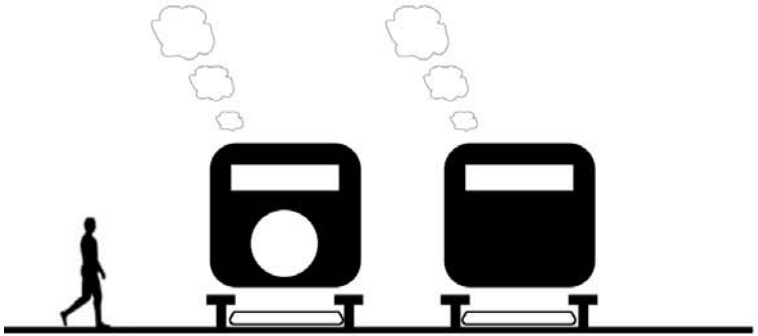

EXISTING RAILWAY
(FOR INDUSTRIAL USE)

REUSED RAILWAY
(FOR TOURISM USE)

World Industrial-Innova Exposition

initial remediation +
public amenity

Phase 1

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