

CHANGING SACRED SCAPES

A cultural approach for a
sustainable Varanasi

29-06-2020

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Dr. Gerdy Verschuure Stuij

Msc. Urbanism Graduation Presentation

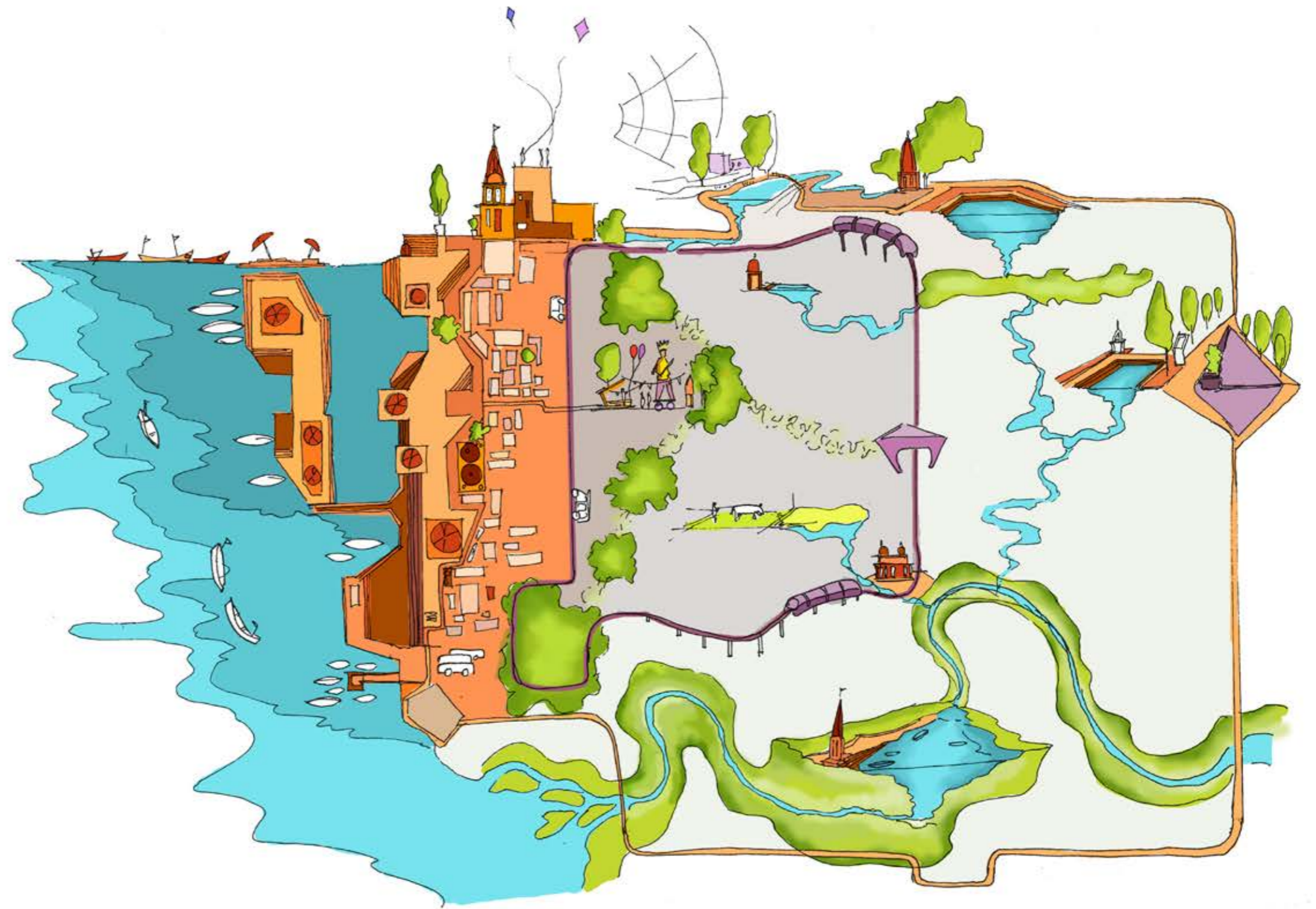


वाराणसी

Vision 2031



Vision 2031 ?



Presentation structure

1

context

■□□□□□□

2

problem

□■□□□□□

3

analysis

□□■□□□□

4

vision

□□□■□□□

5

regional
design

□□□□■□□

6

strategic
framework

□□□□□■□

7

conclusions

□□□□□□■

1

CONTEXT



What are sacredscapes?



Source: airpano.com

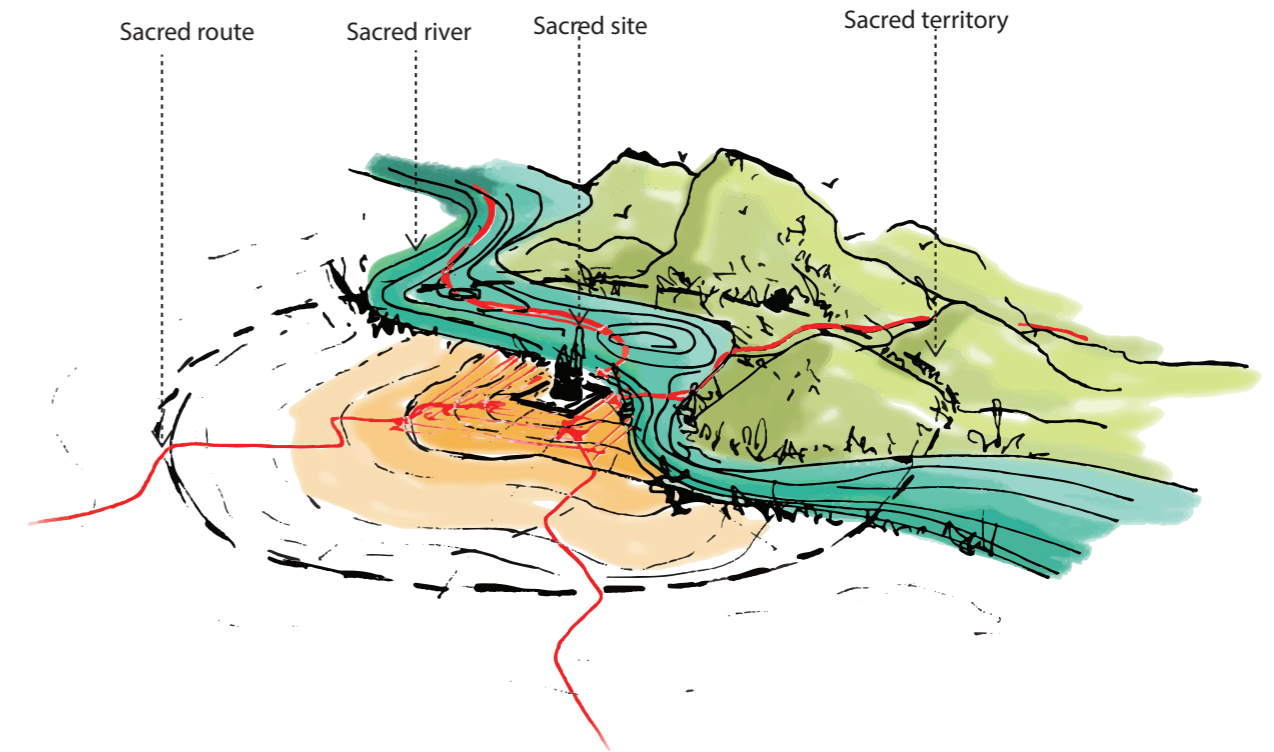


Source: brookings.edu



Source: i.pining.com

‘Sacredscapes are defined by the landscape (nature, built, unbuilt) with the moral meaning of religion and mythology forming a layer of imaginary territory around the sacredscape’. (Singh, 2011)



How to plan for an
imaginary territory ?



Source: Singh, Rana P.B. (1997) Sacred space - pilgrimage in Varanasi.

Context: Indian Sacredscapes

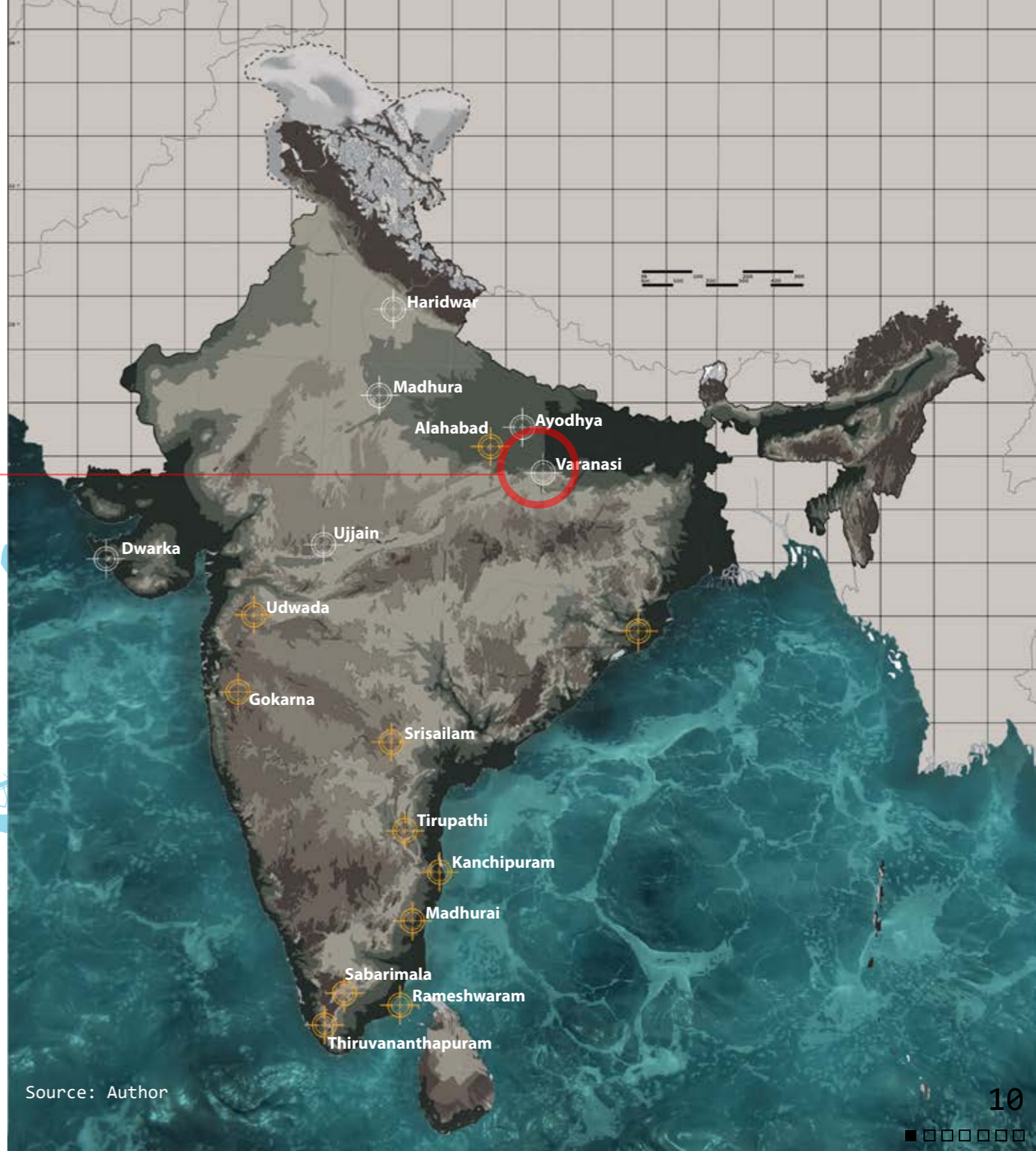


Source: Author

Context : **Varanasi**
Also known as **Kashi** or **Banaras**



Located by the bank of
Holy river **Ganga**



Impressions of Varanasi



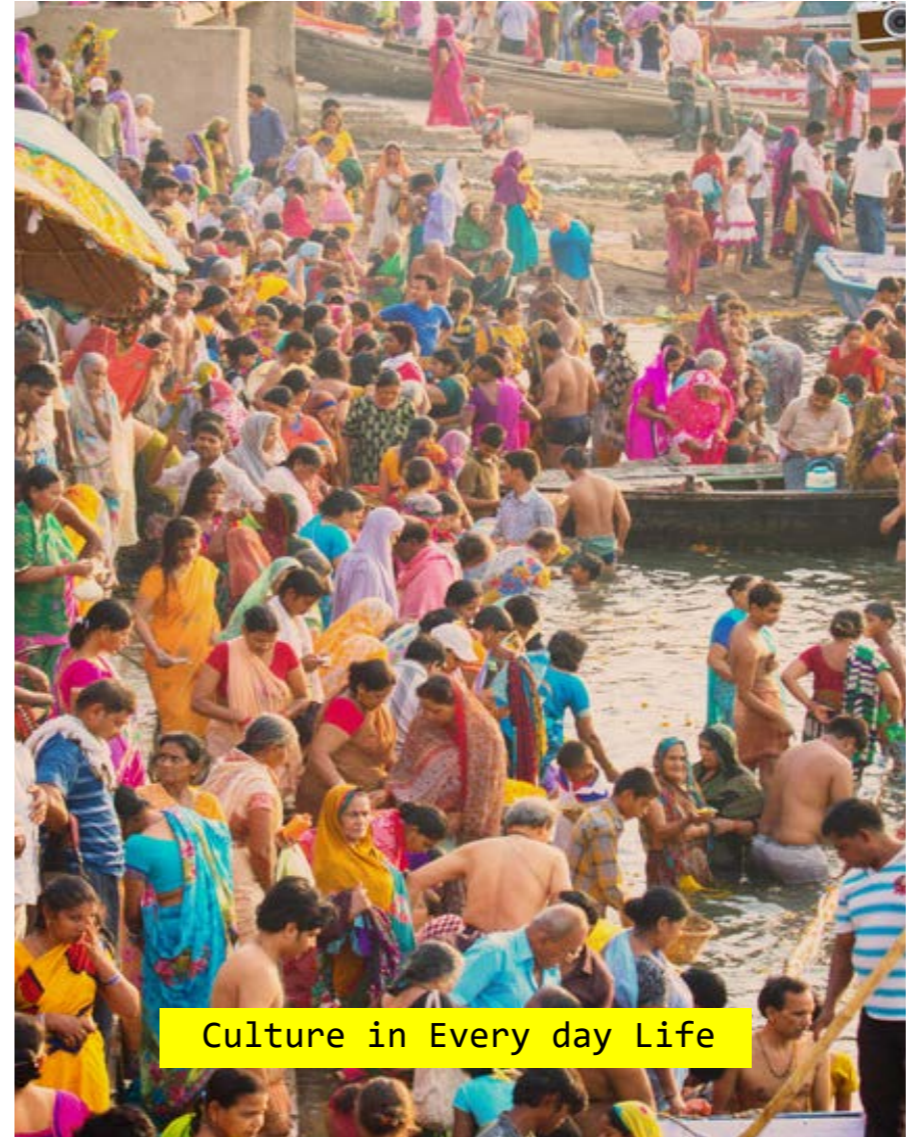
Hindu Religious Hub

Source: brettcolephotography.com



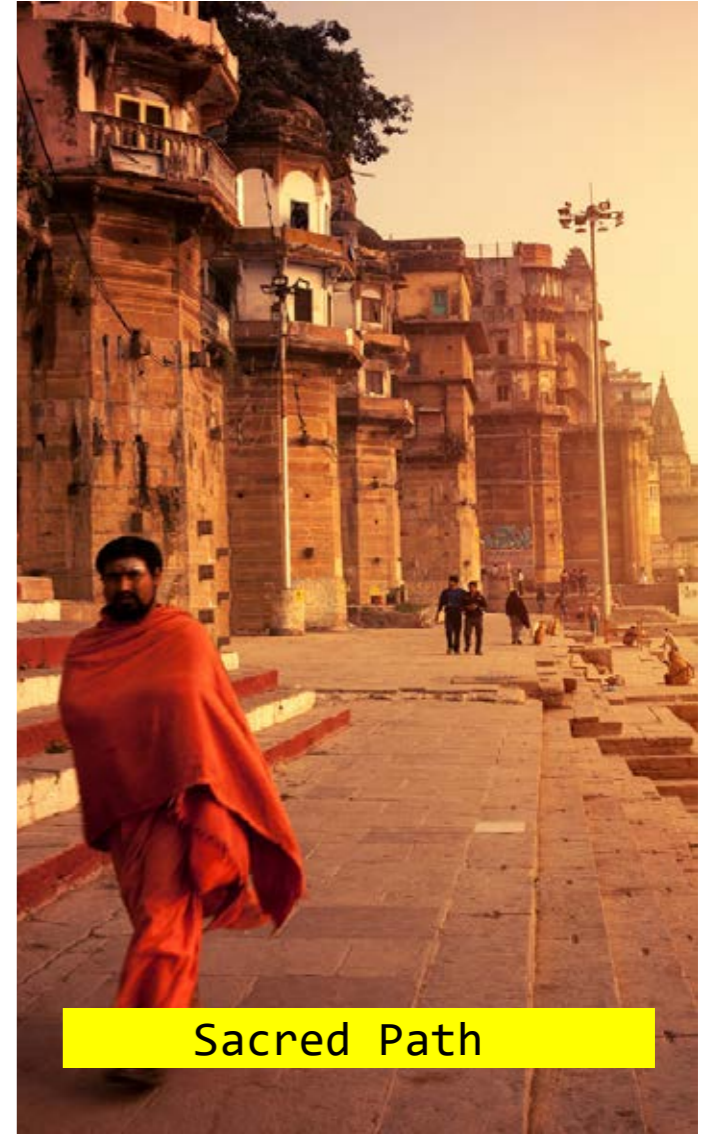
Holy water - Ganga

Source: brettcolephotography.com



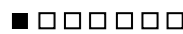
Culture in Every day Life

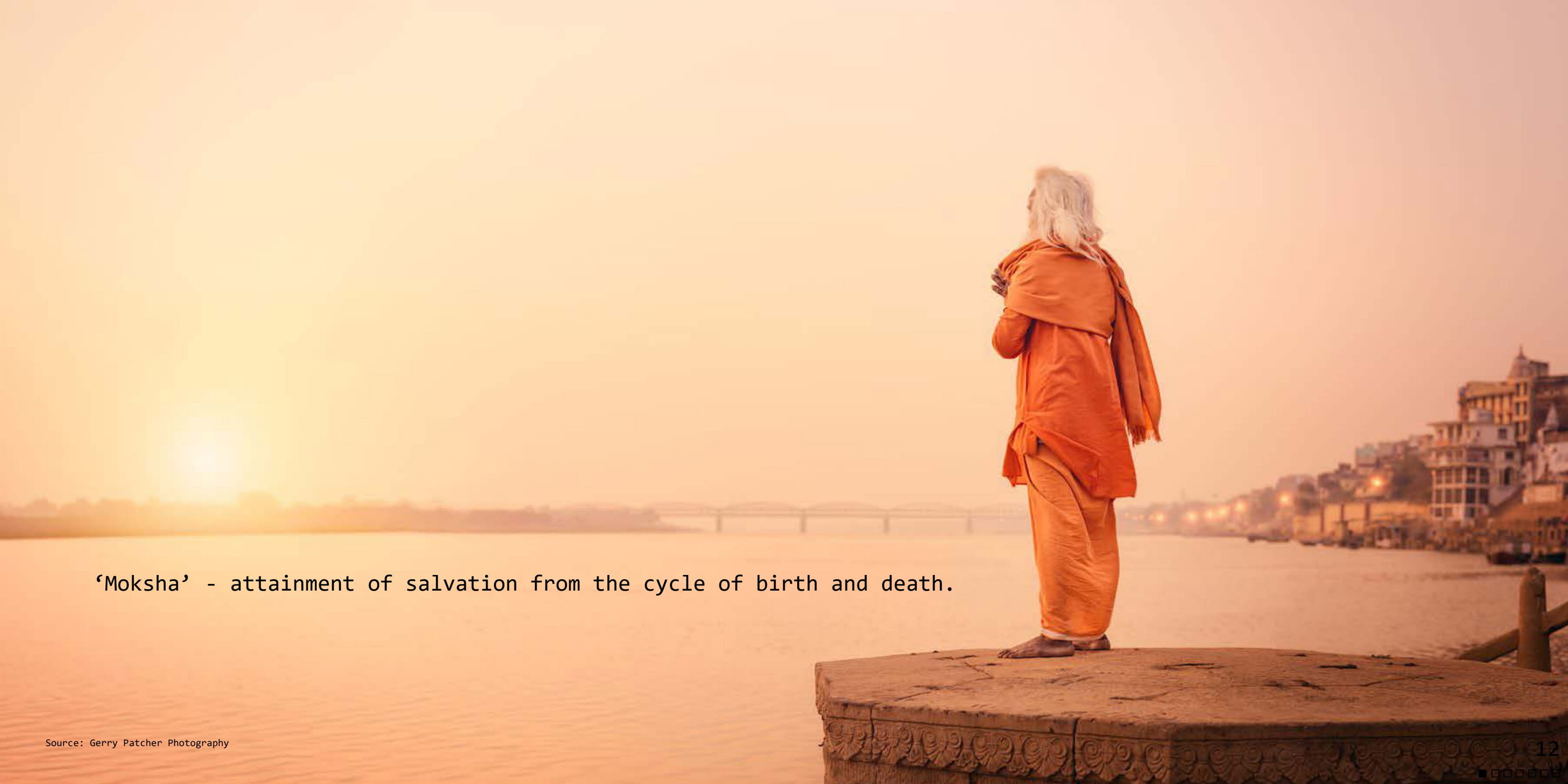
Source: travelandleisureindia.in



Sacred Path

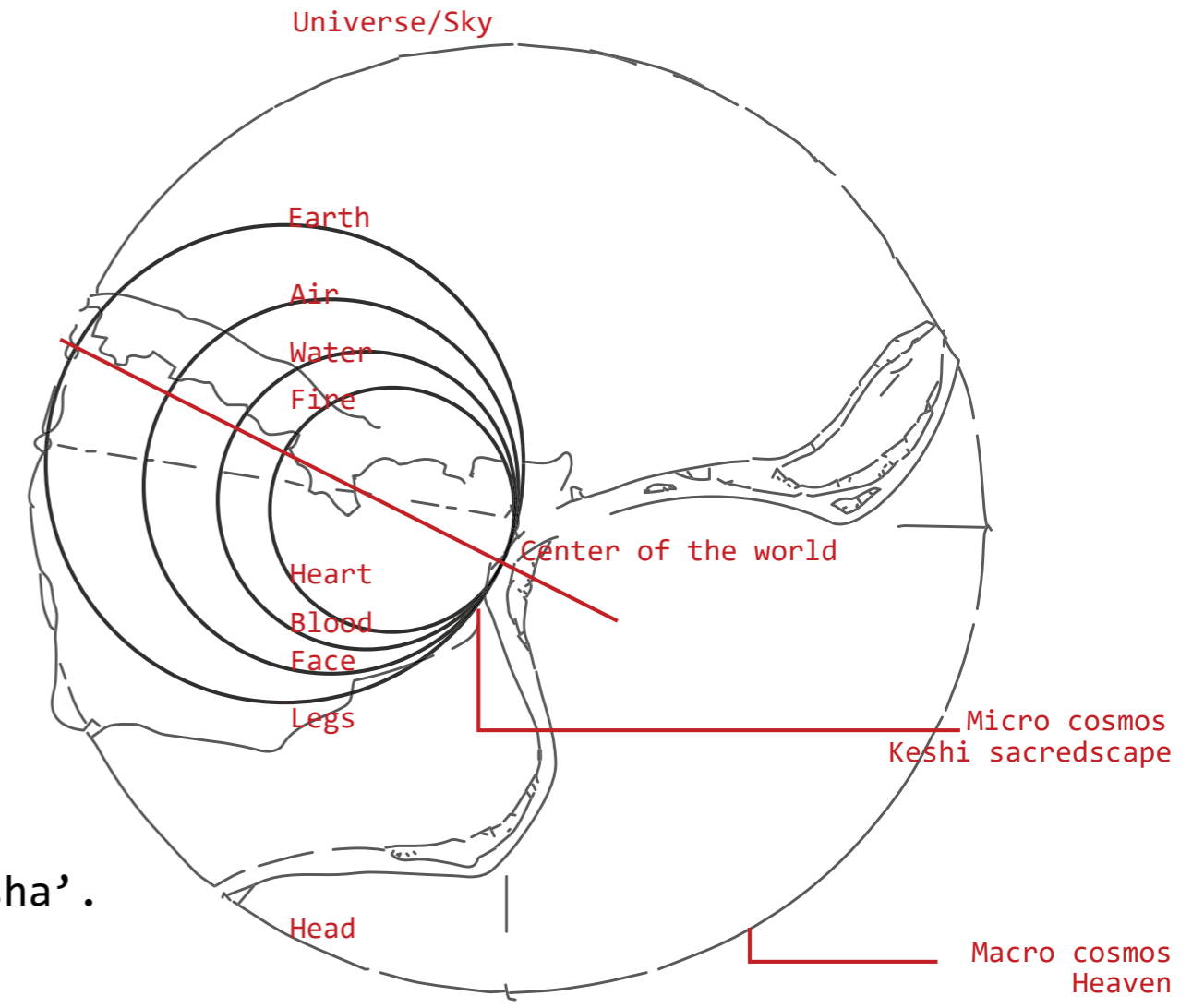
Source: brettcolephotography.com



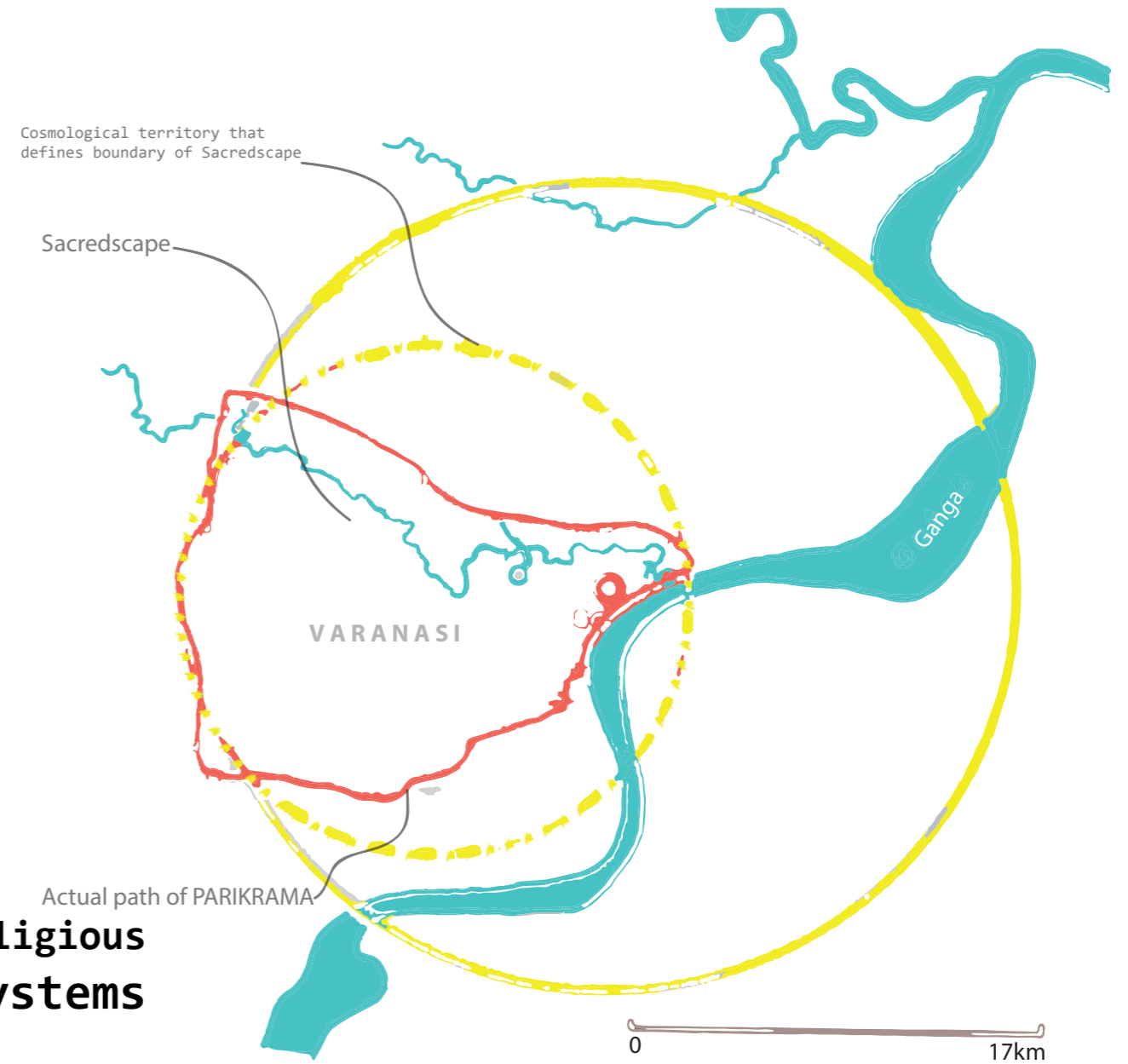
A Hindu monk with long white hair and a beard, wearing traditional orange robes, stands barefoot on a stone platform. He is looking out over a wide river towards a bright sunset on the left. In the background, a bridge spans the river, and buildings are visible on the right bank. The overall atmosphere is serene and contemplative.

‘Moksha’ - attainment of salvation from the cycle of birth and death.

In Hinduism, the pilgrimage journey is believed to transform the microcosmic (sacredscape) journey into a macrocosmos (heavens) for 'moksha'. This is spatially made visible through **pilgrimage mandala**.



The relationships between **land** and **water** defined by the **religious** concepts has kept the balance between the **socio ecological systems** of this imaginary territory.



Religion

Land

Water



2

PROBLEM

VARANASI
411 MLD
9607 BOD LOAD (kg/day)
 NAGWA DRAIN
 VARUNA DRAIN
 RAMNAGAR DRAIN



UTTARAKHAND	UTTAR PRADESH	BIHAR	JHARKHAND	WEST BENGAL
450 km	1,000 km	405 km	40 km	520 km
14 drains	43 drains	25 drains		54 drains
440 MLD	3,270 MLD	580 MLD		1,780 MLD

Source: Central Pollution Control Board

Land



Source: Author

Religion



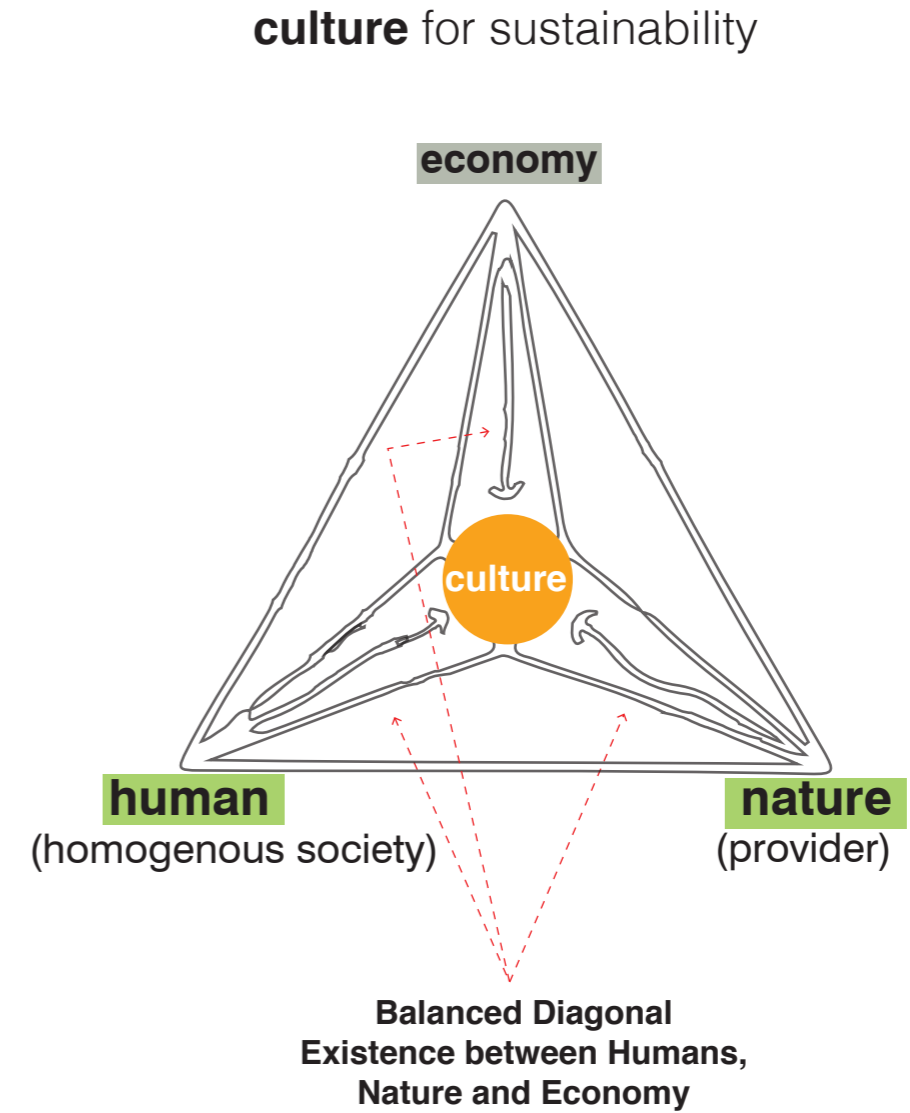
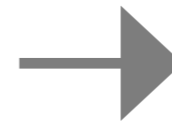
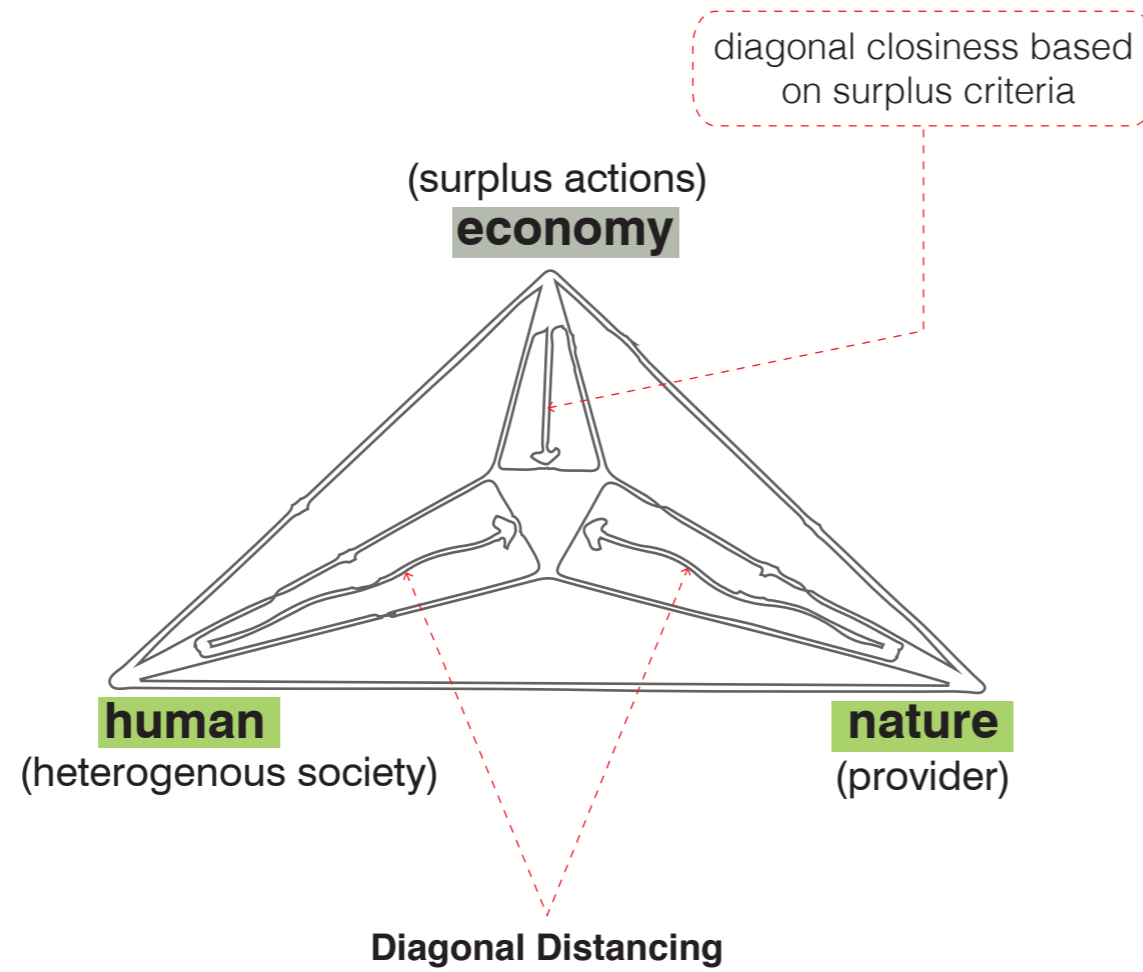
Source: Michael Huniewicz

Water



Source: flickr.com/ Amit Bhargava

How to formulate a strategic spatial framework in enhancing the socio-ecological synergies for a culturally sustainable Varanasi?



References:

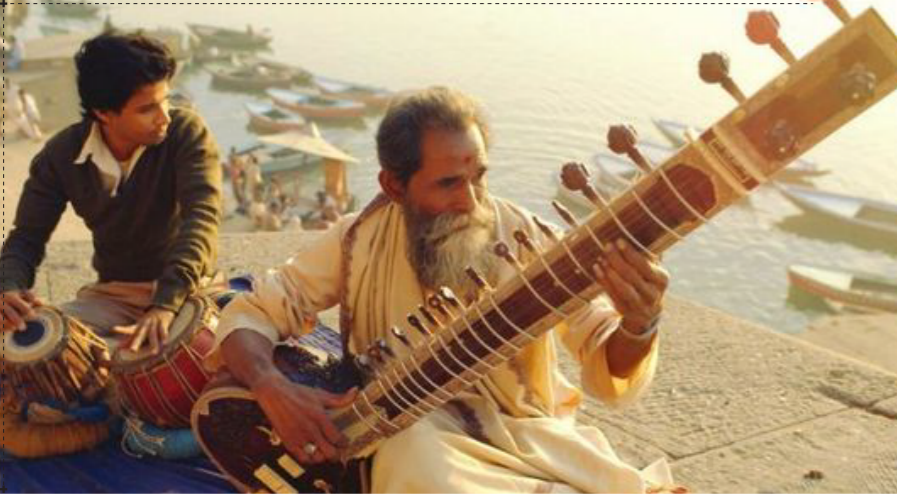
Culture as an approach

(Nadarajah, 2007; Duxbury, 2016)

Culture for sustainability

(Dessein et al., 2015); (Soini & Dessein, 2016)

How Culture can be used as an approach?



nature-worship
 Rituals
 local-markets
 sacred-trees
 heritage ^{saree}
 festivals ^{Kashi}
 Kunds ^{Varanasi}
 character
 history temples
 music
 sadhus
 pilgrimage-path

Artifacts



Values



Assumptions



Reference:
Schien, E.H (1990). Organizational Culture.

Culture of Varanasi

Artifacts

- heritage
- cultural open spaces
- music and art
- local materials
- sacred trees
- festivals
- traditional economy
- local markets
- pilgrimage path
- temples
- religious rituals
- sacred grooves
- cultural infrastructure
- ponds

Values

- spontaneity
- inclusion
- acceptance
- community
- character
- spirituality
- nature worship
- history

Assumptions

- cultural orientation
- hindu way of living

For A Culturally sustainable Varanasi

Environment and cultural interactions



- heritage
- cultural open spaces
- local materials
- sacred trees
- ponds
- nature worship
- sacred grooves
- creating context to heritage
- pilgrimage path
- cultural infrastructure
- vernacular architecture
- festivals
- temples

Economy and cultural interactions



- music and art
- handloom industry
- local markets
- stone carving
- festivals
- toy making
- boat making
- religious rituals

Social and cultural interactions



- inclusion
- acceptance
- communities
- participation
- character
- history
- cultural orientation
- hindu way of living

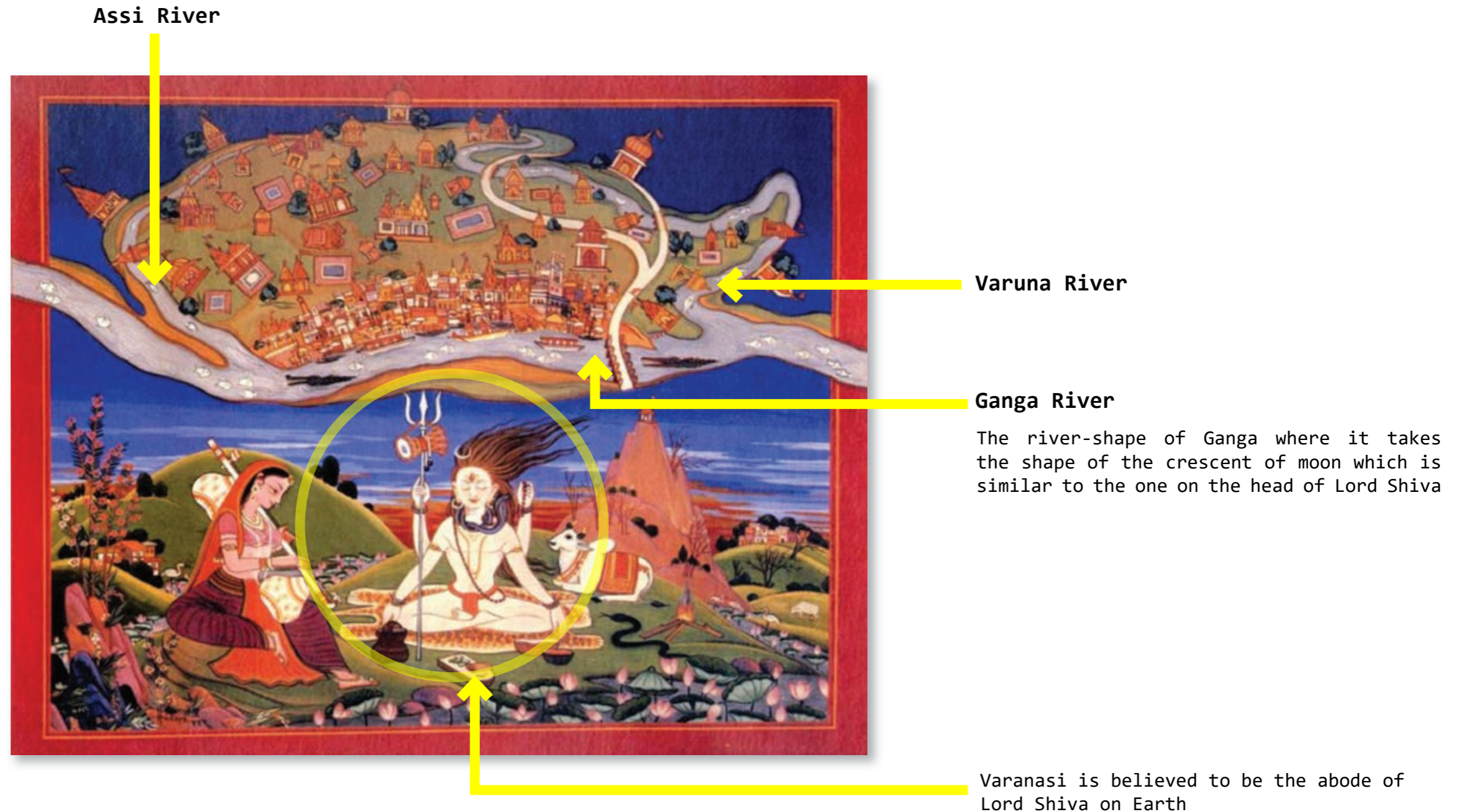
3

ANALYSIS

Varanasi Sacredscape



Source: Singh, Rana P.B. (2012) Towards the Pilgrimage Archetype. Panchakroshi Yatra of Banaras.

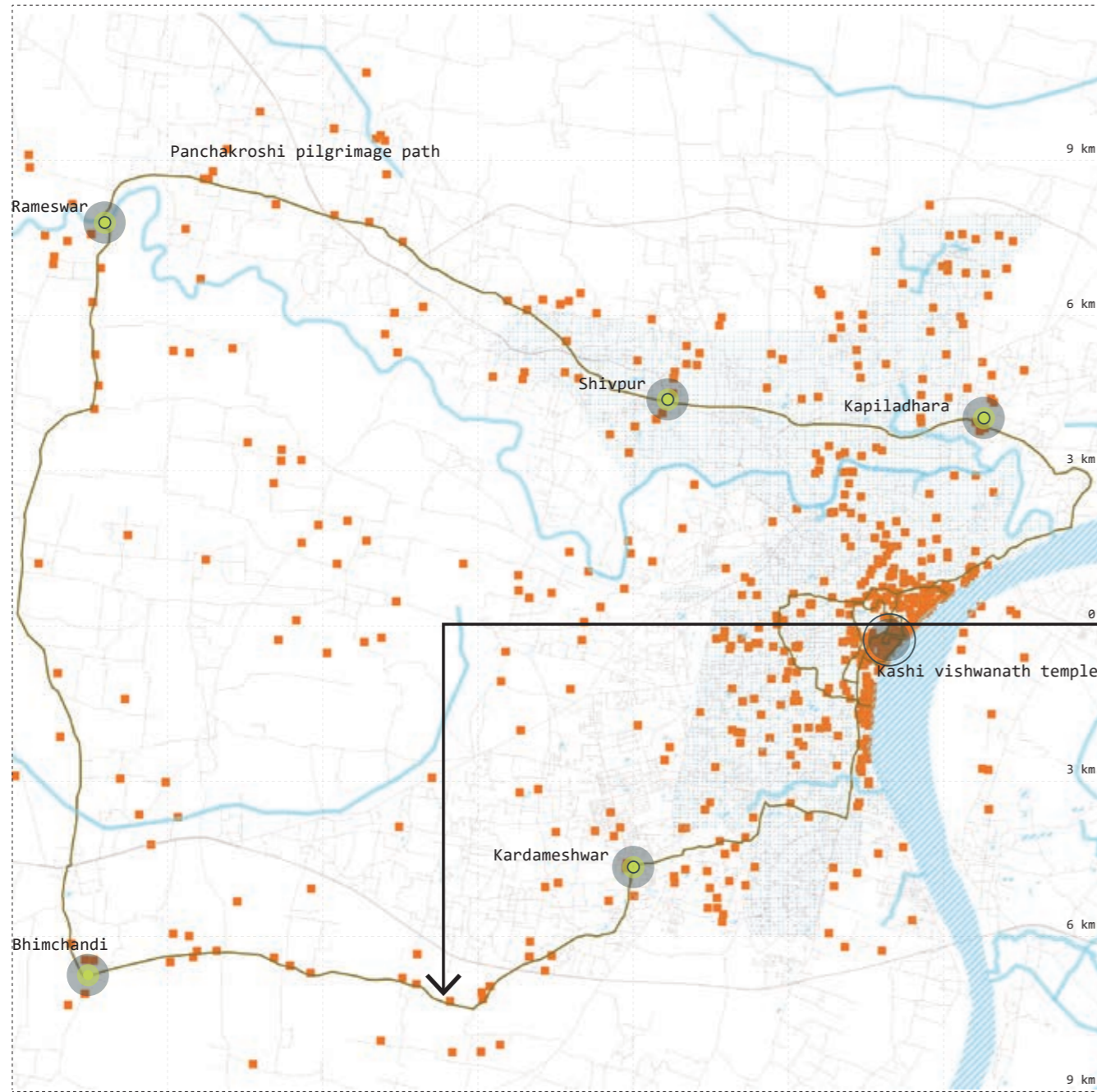


Source: Singh, Rana P.B. (2012) Towards the Pilgrimage Archetype. Panchakroshi Yatra of Banaras.

Pilgrimage Path

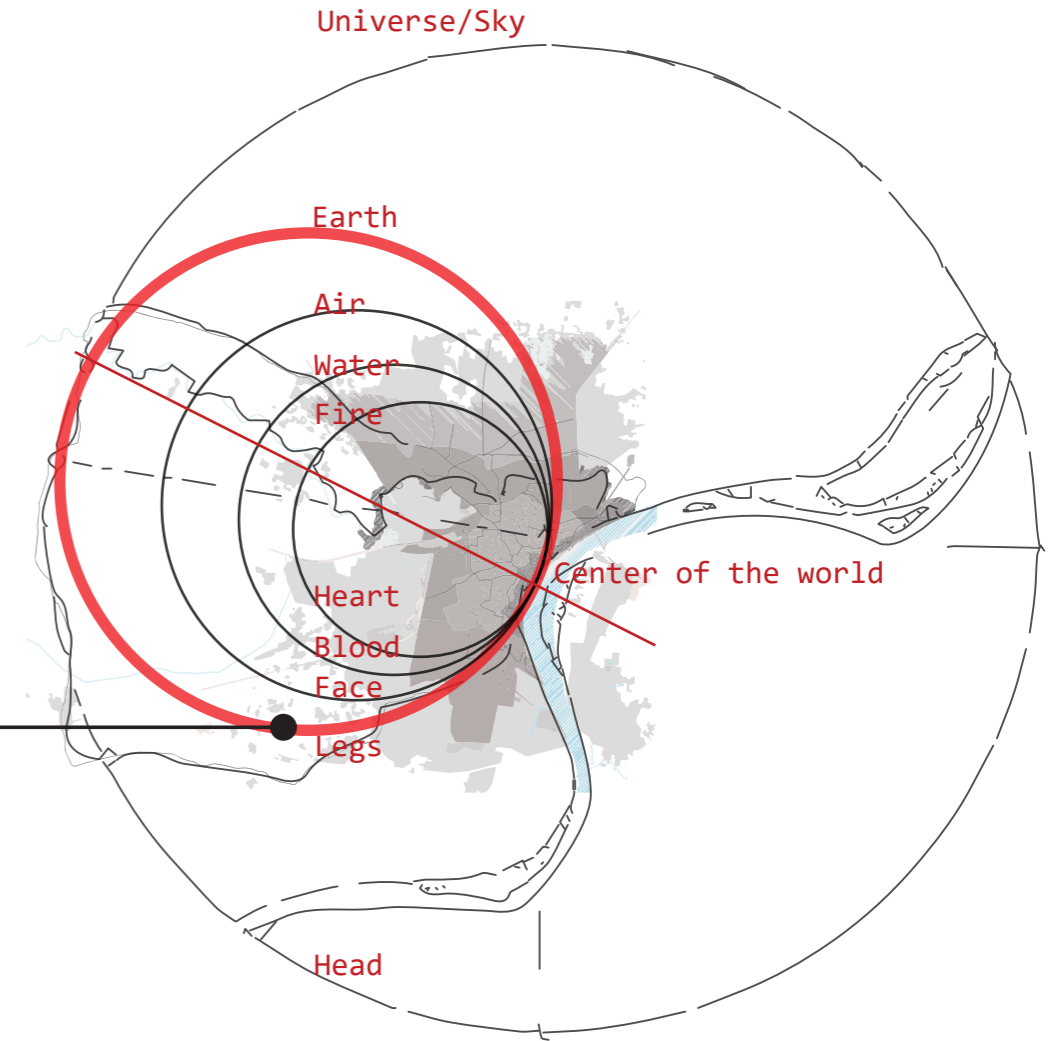


Source: Wits End Photography/ Jennifer Mishra



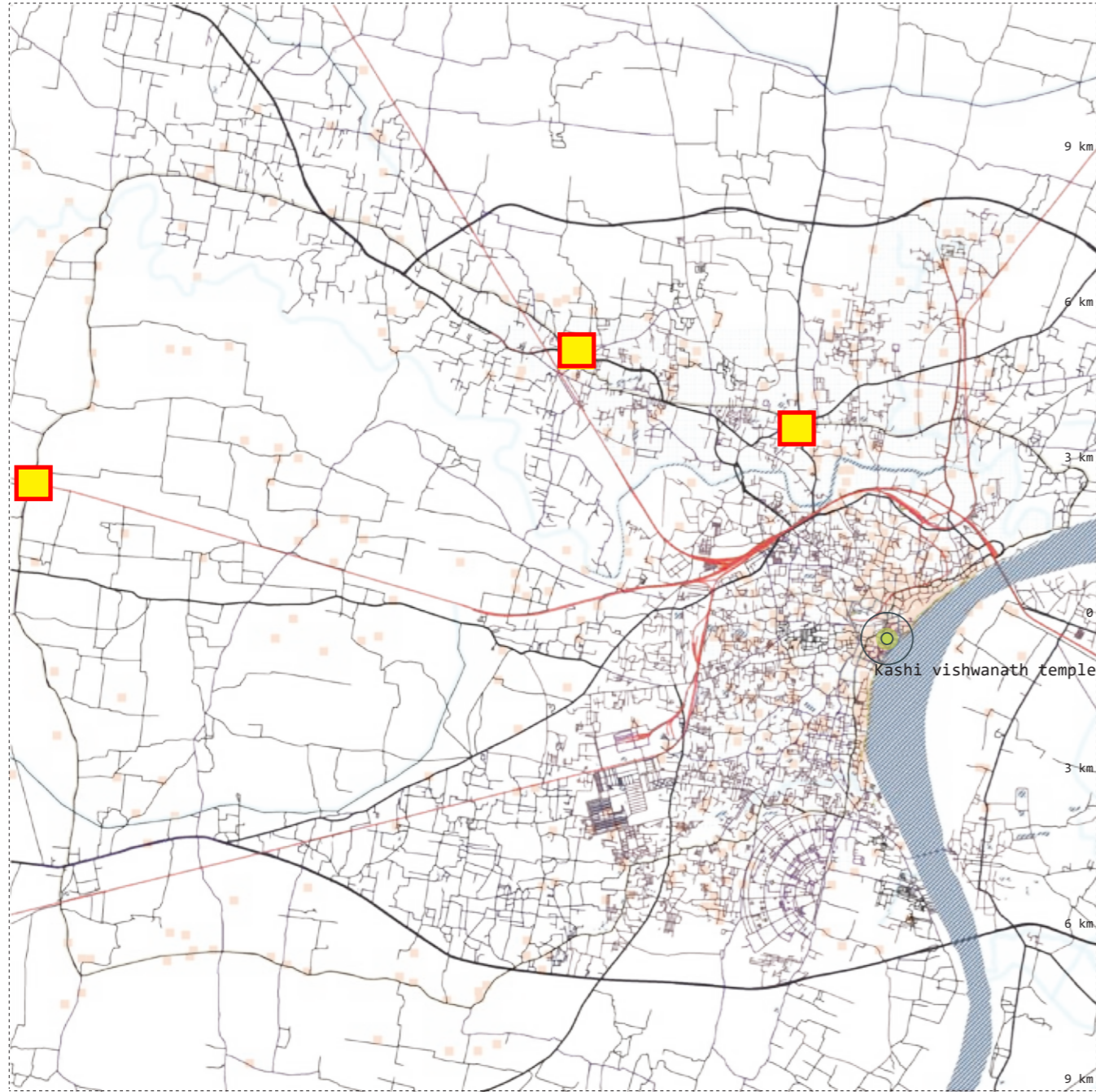
- Temples
- Pilgrimate path
- Sacred Destinations


88.5km
 5 night halt locations



■ Before

These sacred pilgrimage paths have been the major link for socio-ecological systems of Varanasi which linked the rural to urban and connected different parts of the landscape to one purpose.



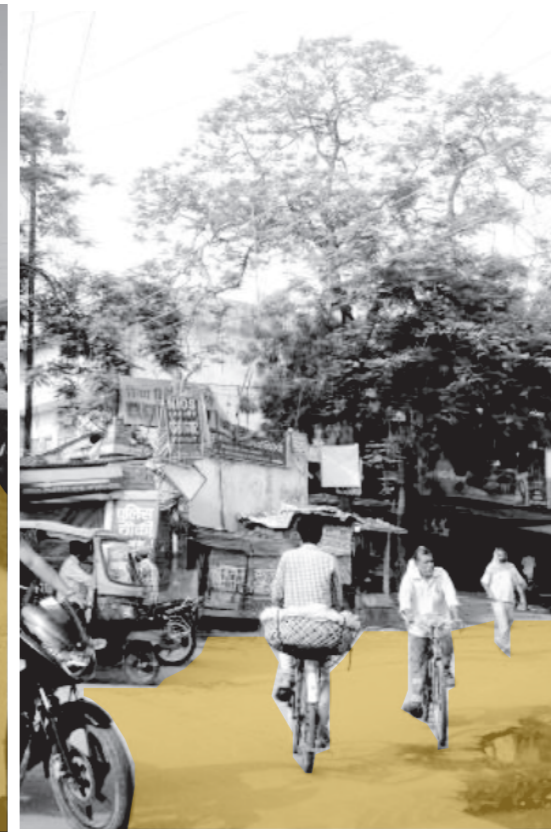
Present Condition

Infrastructure developments have bisected these pilgrimage paths and have lost the ecological quality that was once rich with sacred grooves and ponds along its path.

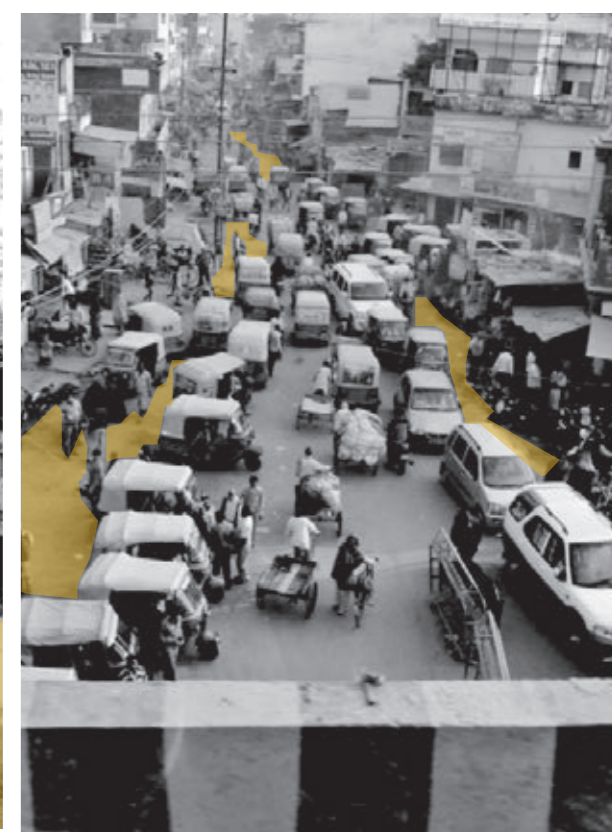
Rural area



Urban-rural fringe



City limits





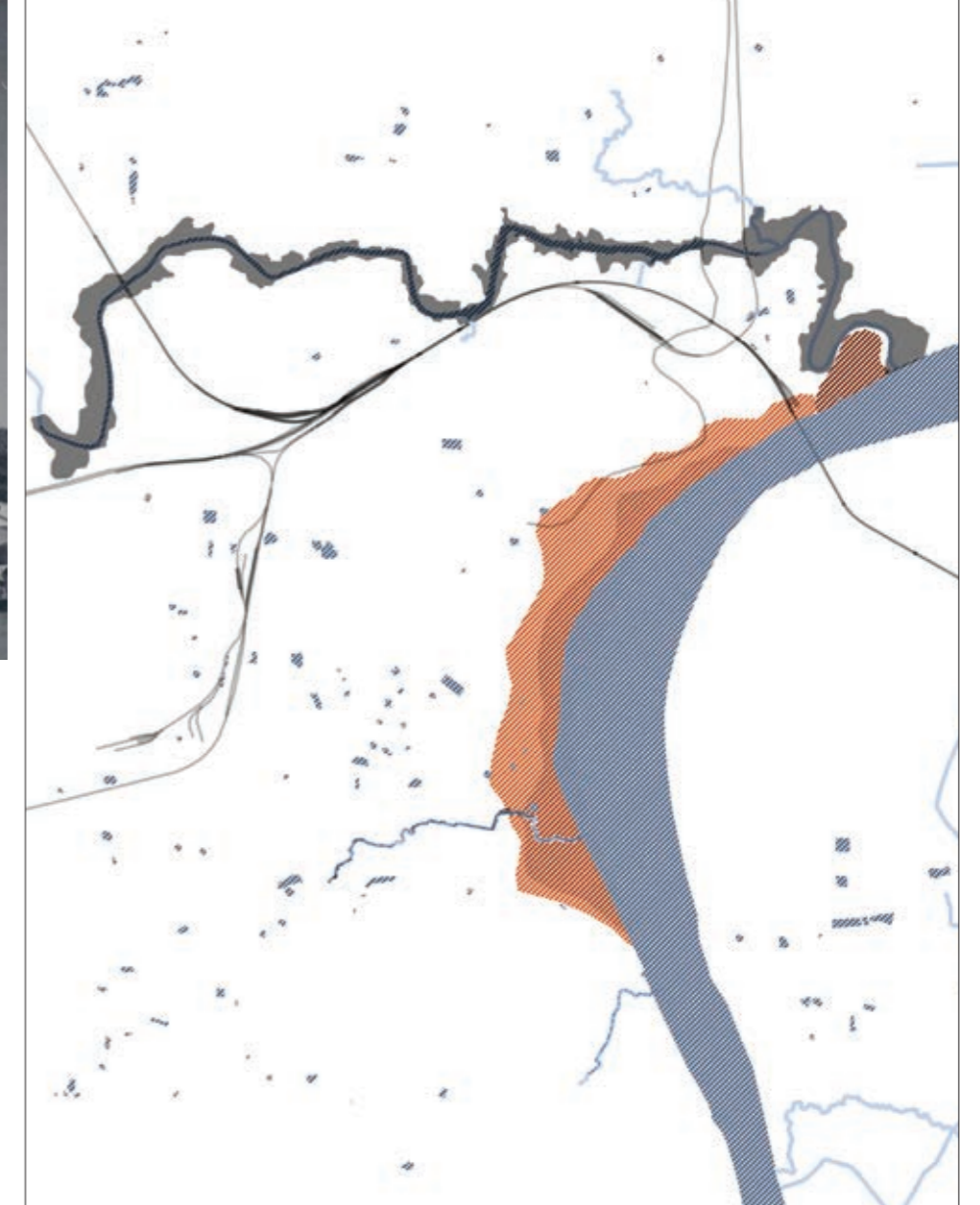
Dilapidated conditions of Halt locations along the pilgrimage path.



Riverfront Ghats

84 Ghats

6.5km Ghat riverfront



■ Before

The religious Ghats have been the unique visual identity of Varanasi with temples descending to the river Ganga along the river edge.



The Ghats have become the activity hub with huge stress on the river front due to floating population.

Source: (Aditya Deshmukh, 2014)



Source : flickr.com / Dick Verton



Source : www.brettlephotography.com



Present Condition

Need for sustainable practices and transferring floating population to other parts of the city to reduce stress on Ghats.

Source : flickr.com / Erik Burke

Land



Source: fortuneindia.com / Narendra Bisht



Source: Author



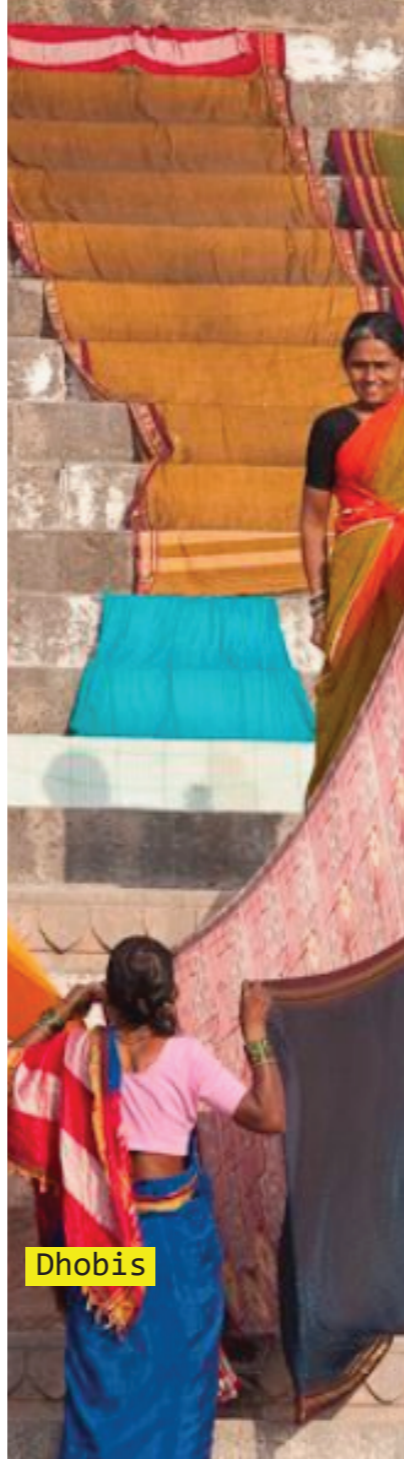
Sweepers



Pilgrims



Doms



Dhobis



Ghat Hawkers



Barbers



Cows



Boatmen

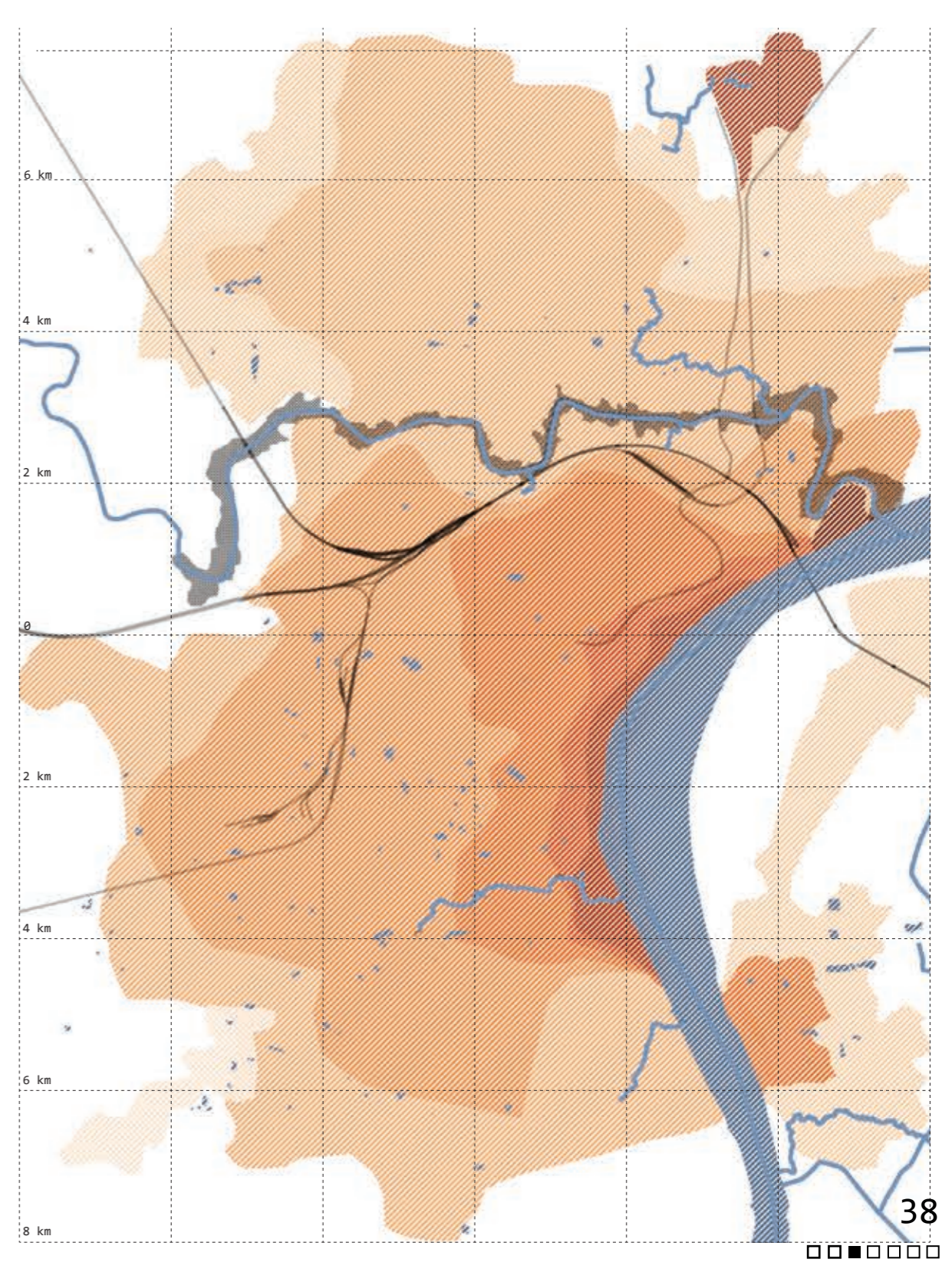


Sadhus



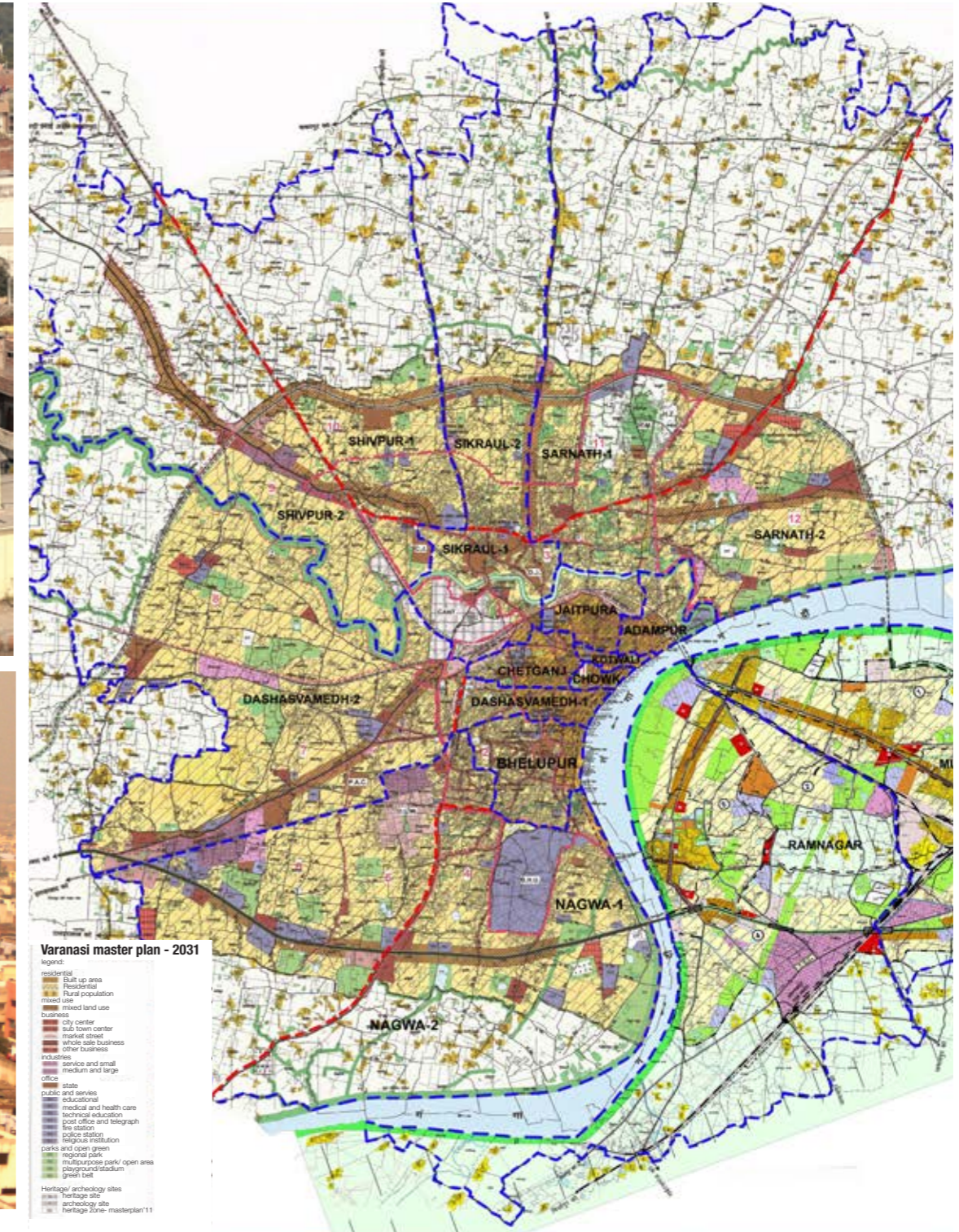
Varanasi is a city that was ruled by many Hindu dynasties as it grew from its religious riverfront into the sacred landscape.

Source: airpano.com



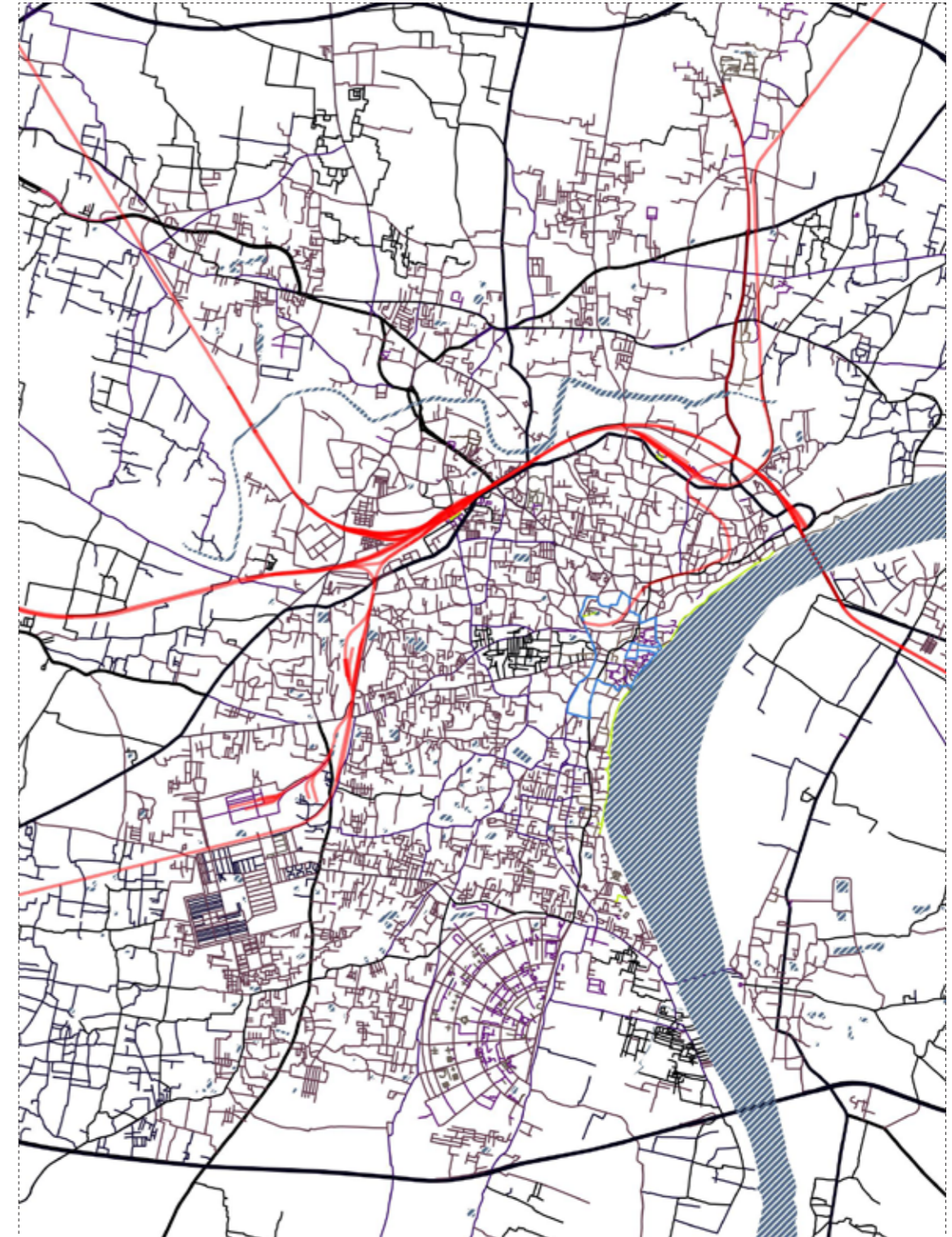
Present Condition

The uncontrolled growth is resulting in urban sprawl and high density with loss of quality of green-blue network.



Transportation

Strong Infrastructural lines with riverfront access that supported Varanasi to be a center for trade and art over the years



Present Condition

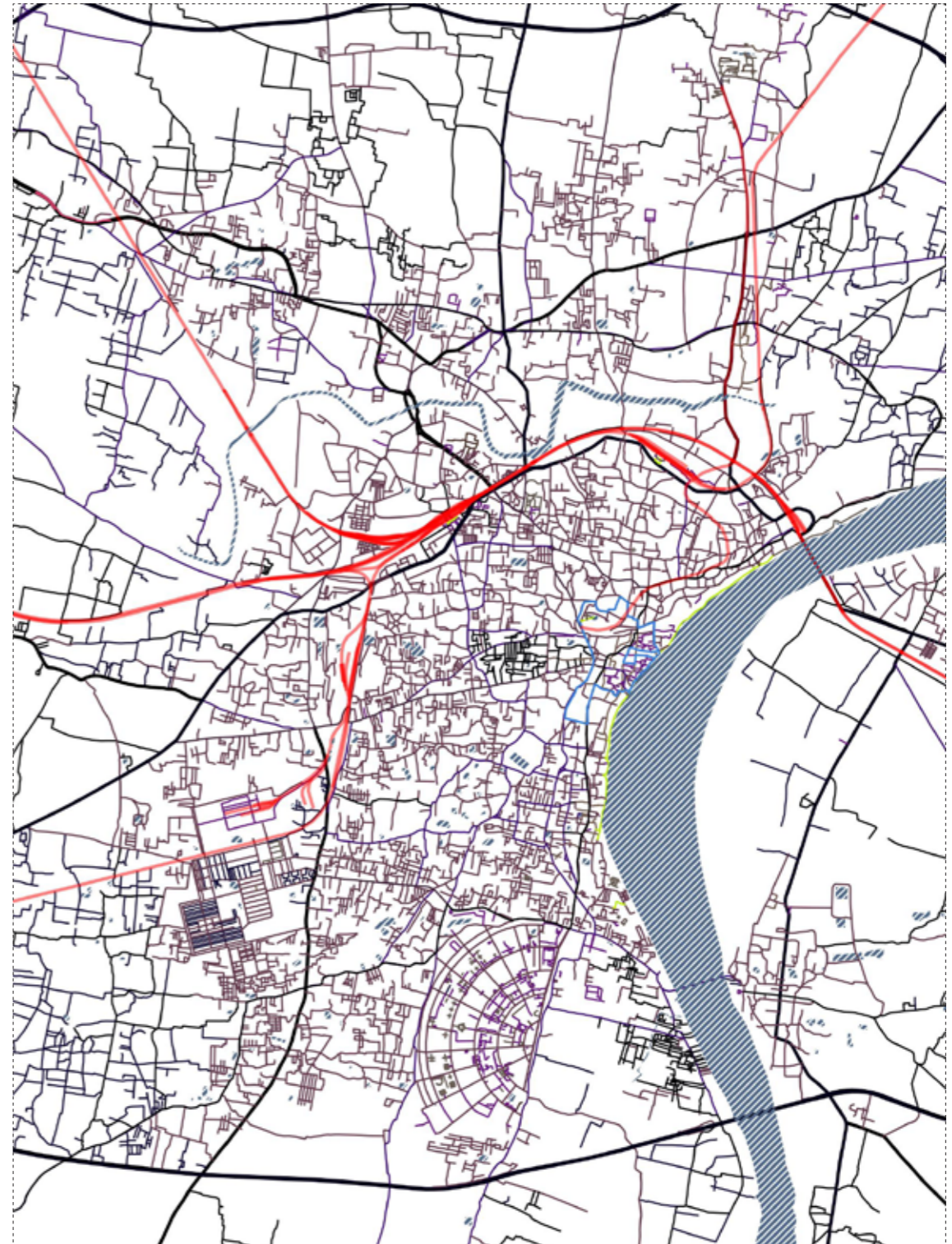
Lack of Public transport, narrow streets, different speed users, active streets and increased automobiles has made congestion a normal scenario in Varanasi City.



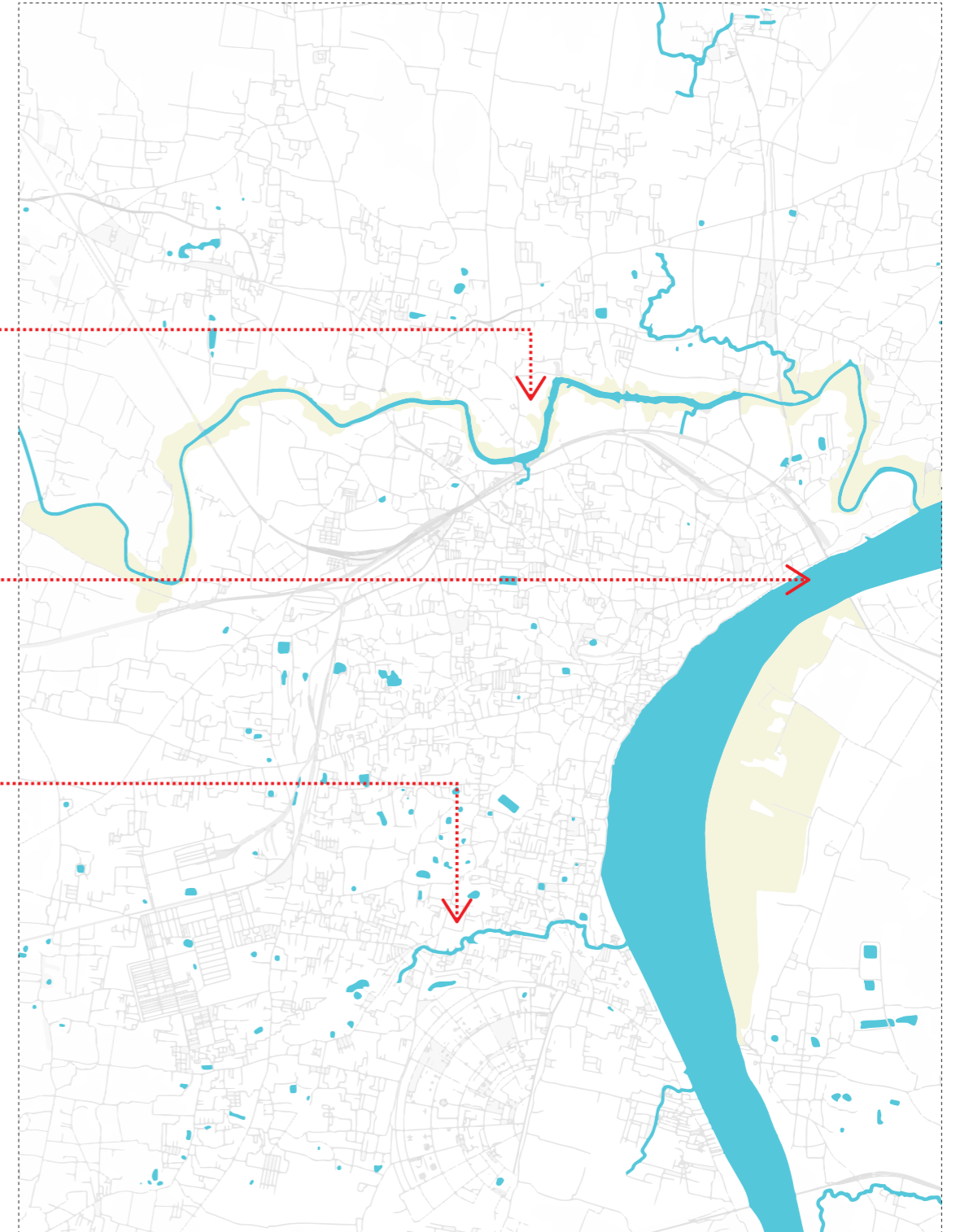
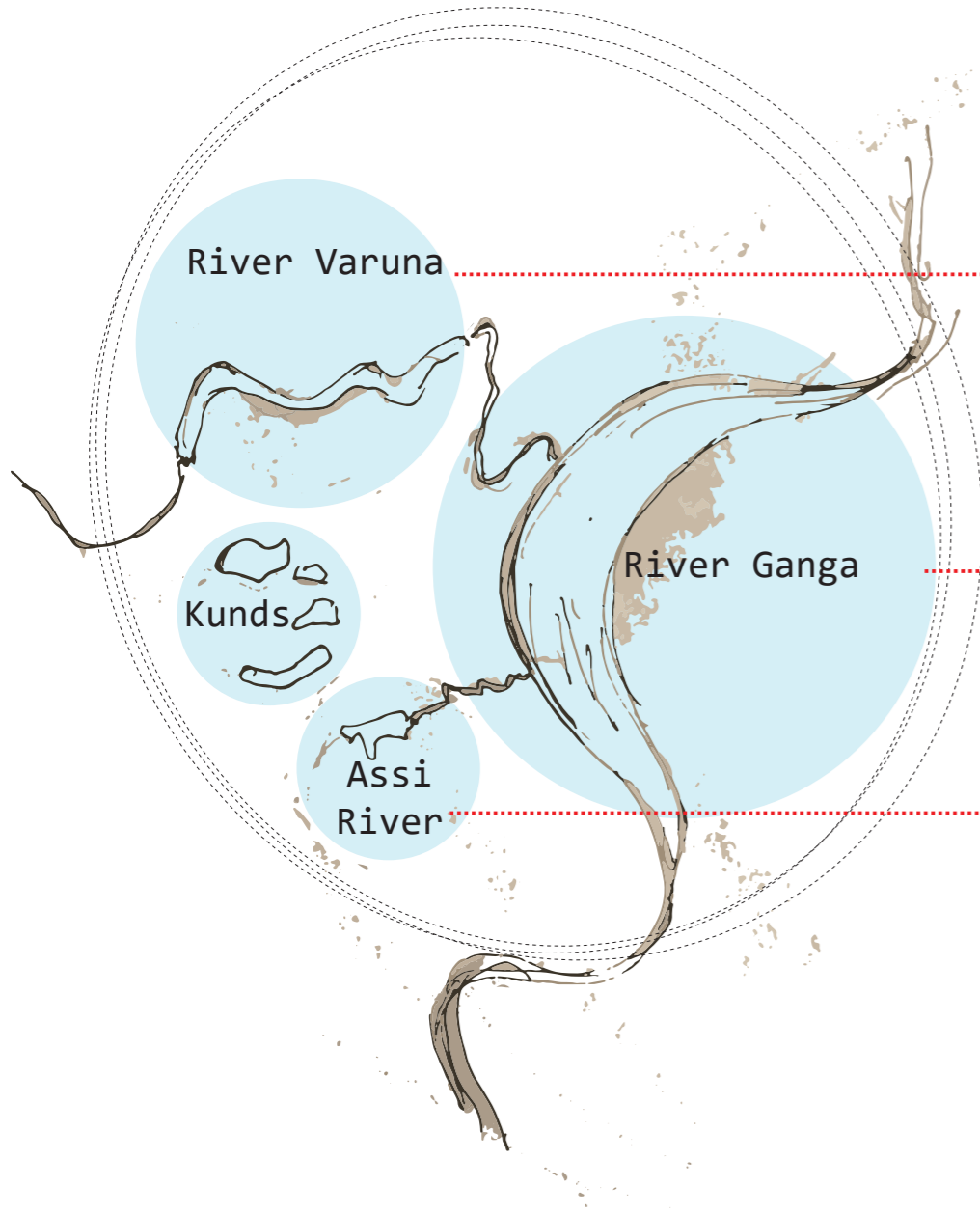
Source : youtube.com / Frits van Ede



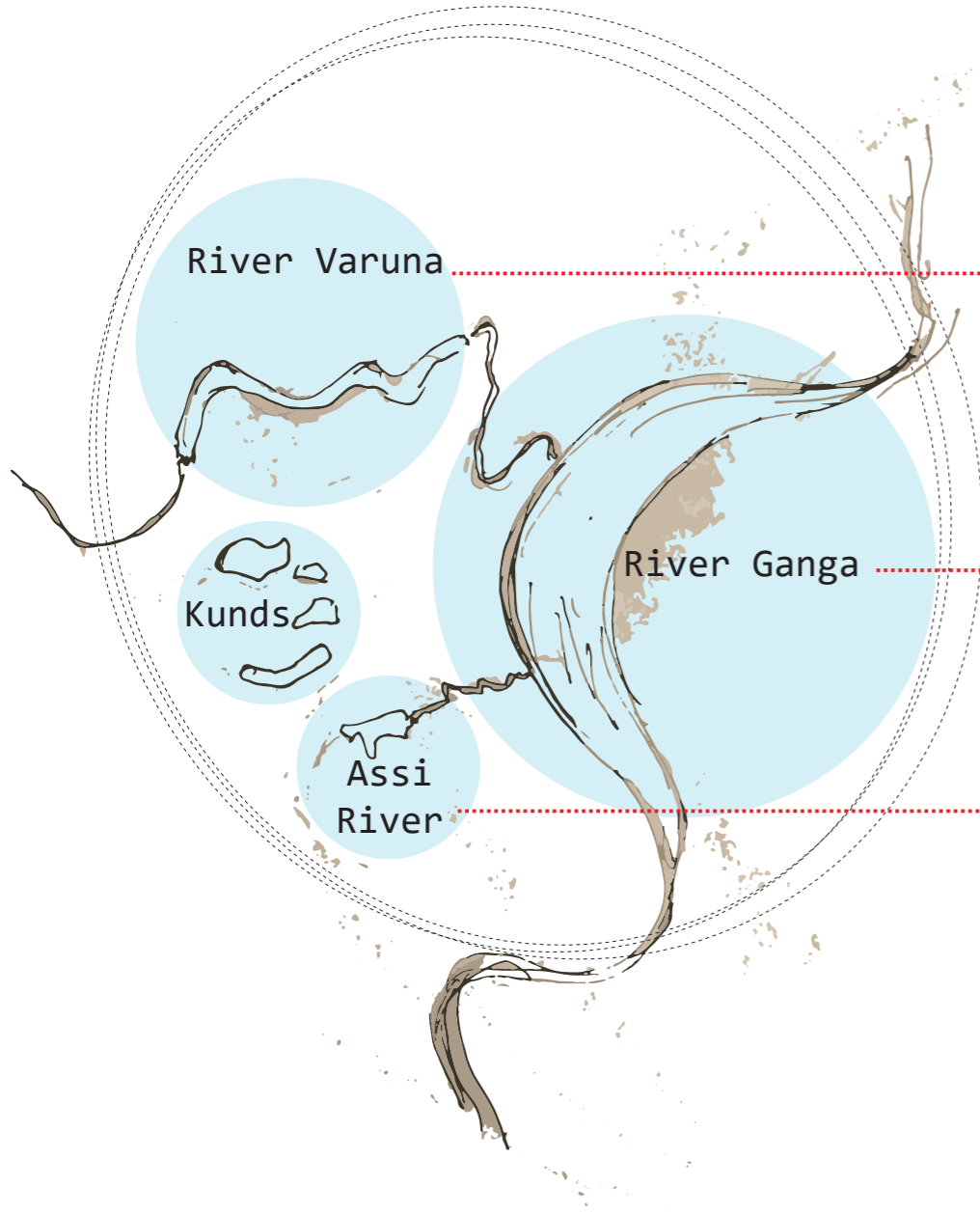
Source : loupiote.com / Tristan Savatier

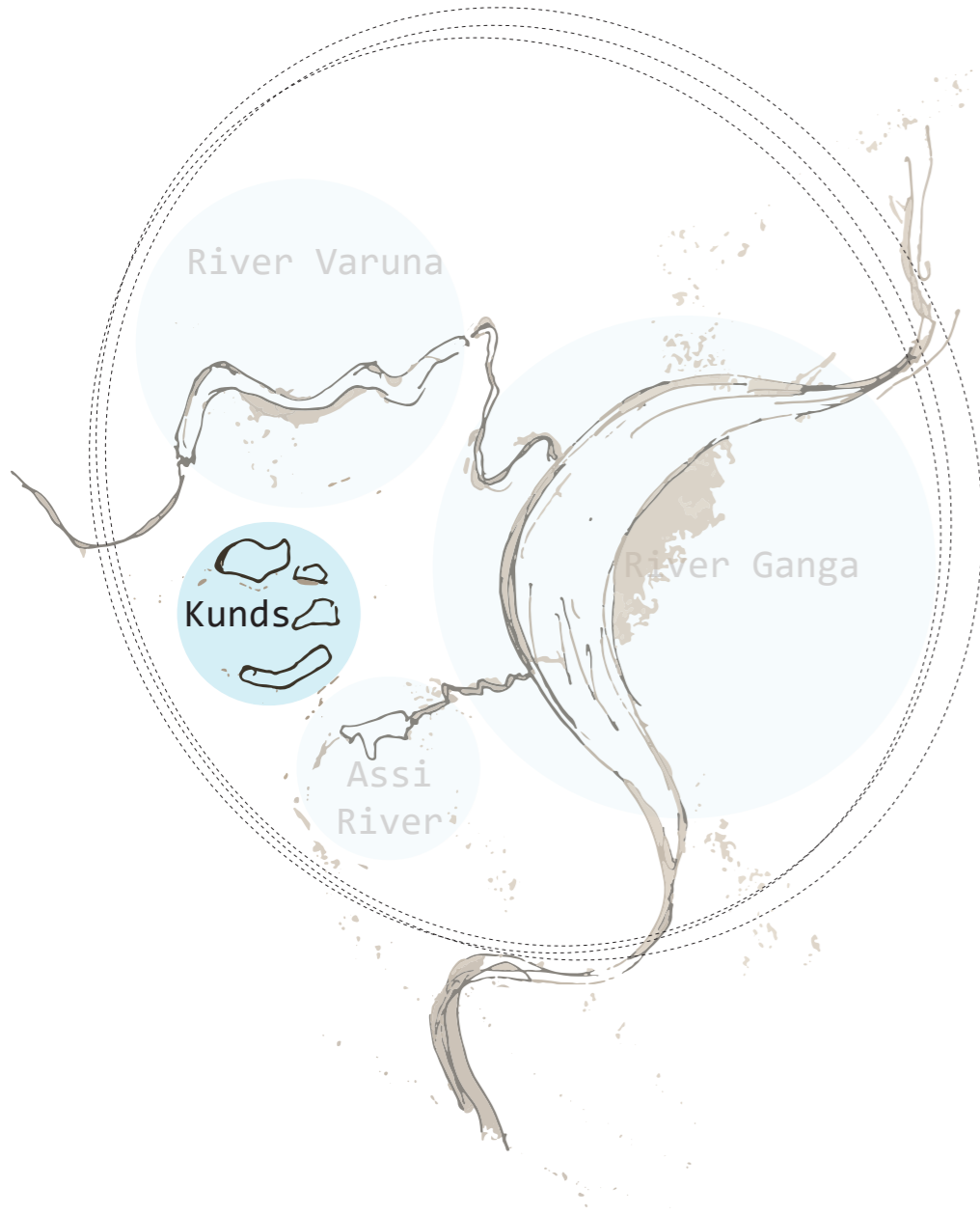


Water



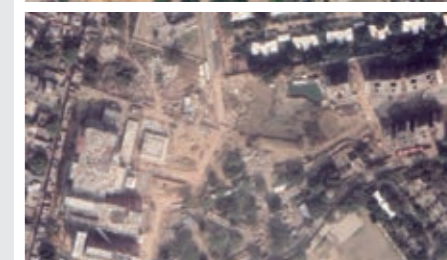
Present Condition



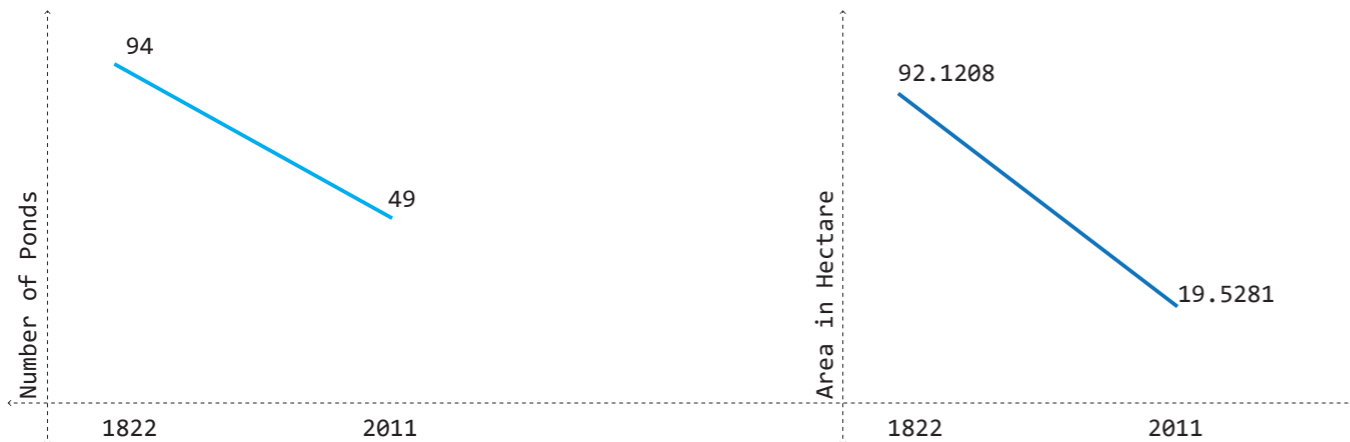


Source: Author

Sudamapur
Varanasi



Present Condition



Tulsiapur
Varanasi



2001 to 2019

Source: Google Earth

Sewage Problems



Continuing stress on the sewage infrastructure due to increasing population and unsustainable practices.

Water Infrastructure

Open sewage drains



Inefficient stations



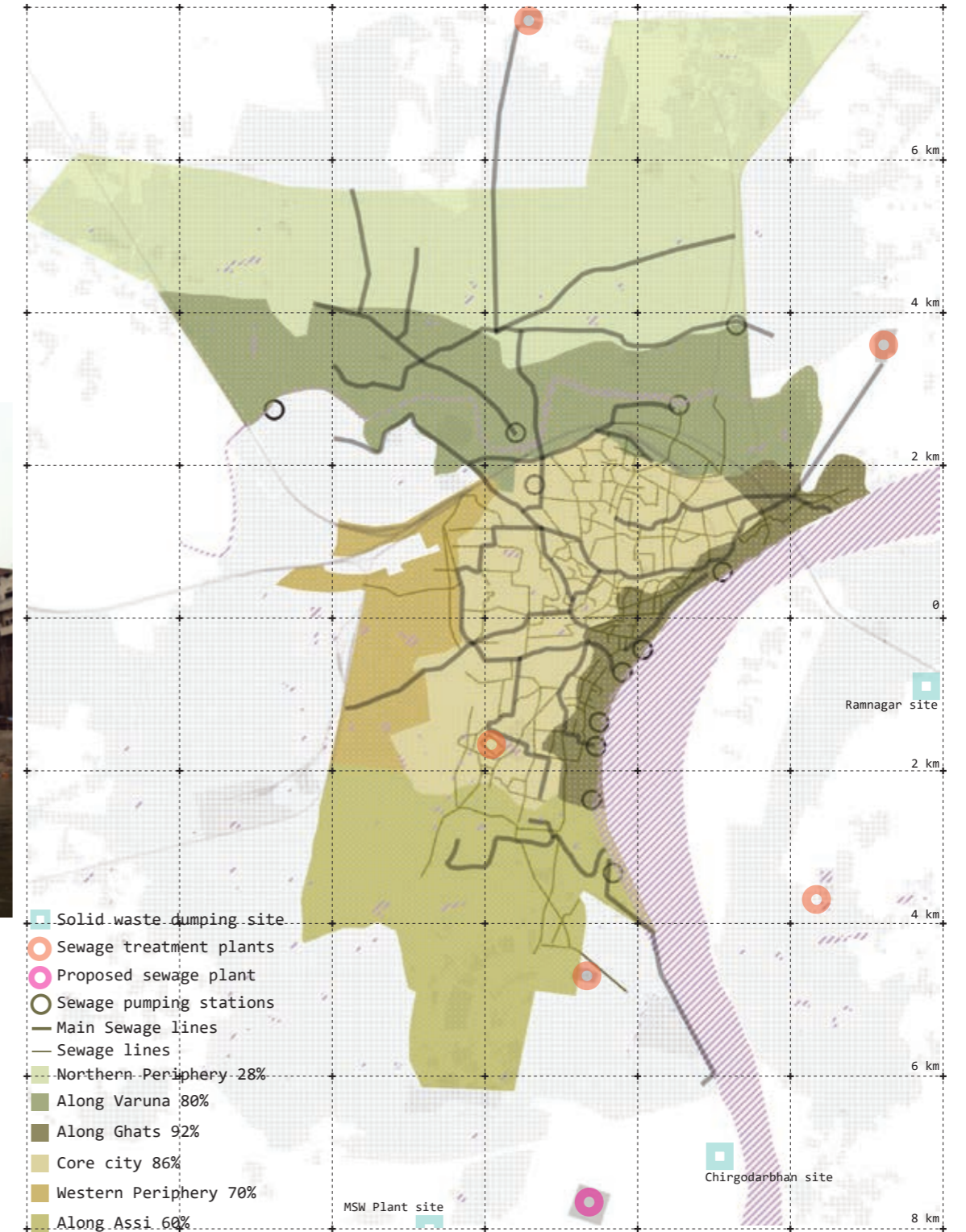
Direct discharge



Losing Identity



Rather than installing more sewage treatment plants, the Government should look at **natural ways of treating and reducing sewage waste.**



Voices of Varansi
'What I know about Varanasi is that....'




Religious practices have been commodified for tourism development

Dr. Shaiju P J
Asst. Professor (Tourism Management)
Banaras Hindu University, Varanasi




The city is going through a decay mode

V N Mishra
Mahant(Chief Priest) _ Sankat Mochan Temple
&
Professor, Banaras Hindu University



Identity of Hinduism is Varanasi and it needs to be protected

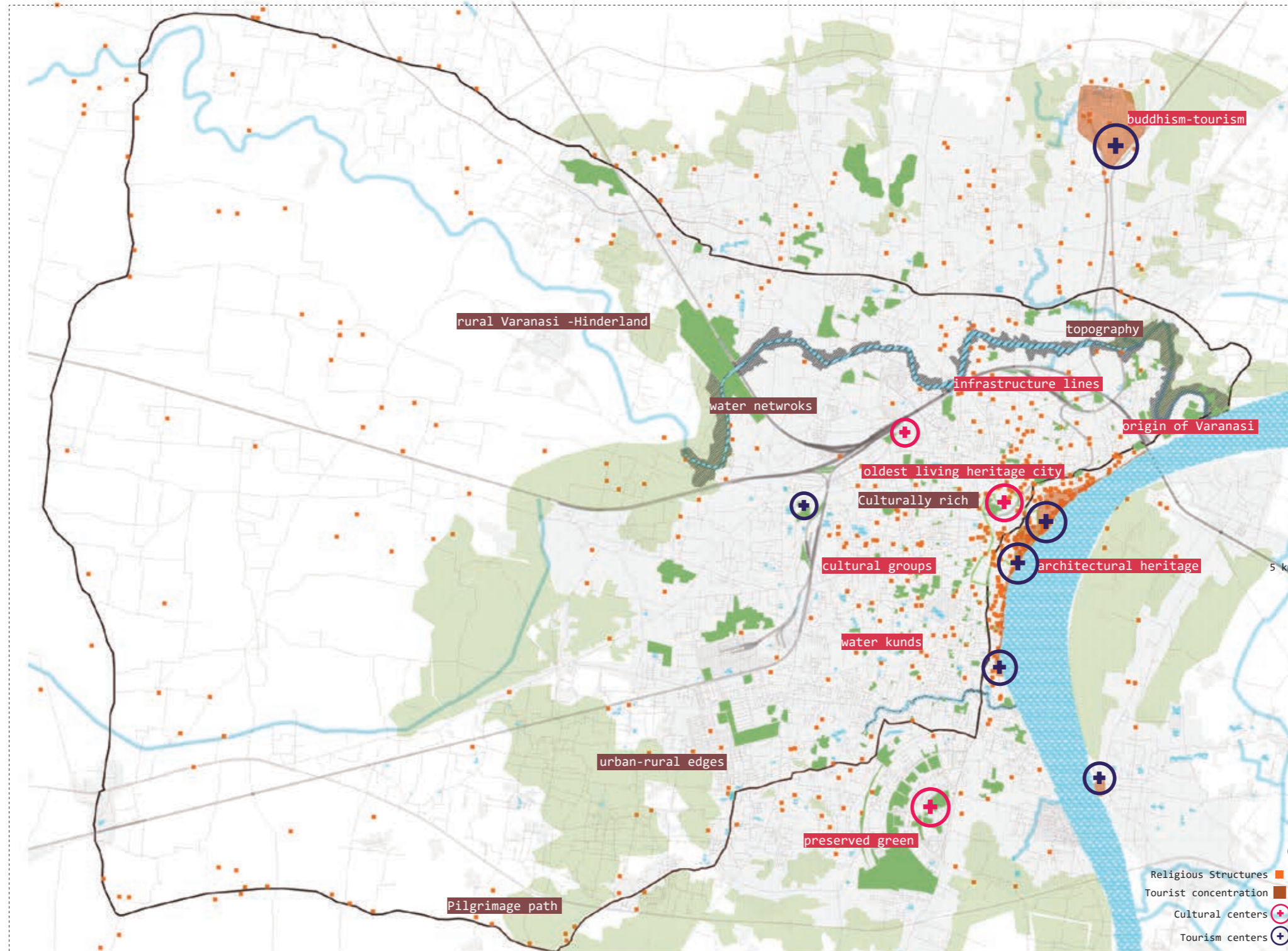
Dr. Prabhat Kumar Singh
Professor & Head (Civil Engineering)
Banaras Hindu University, Varanasi



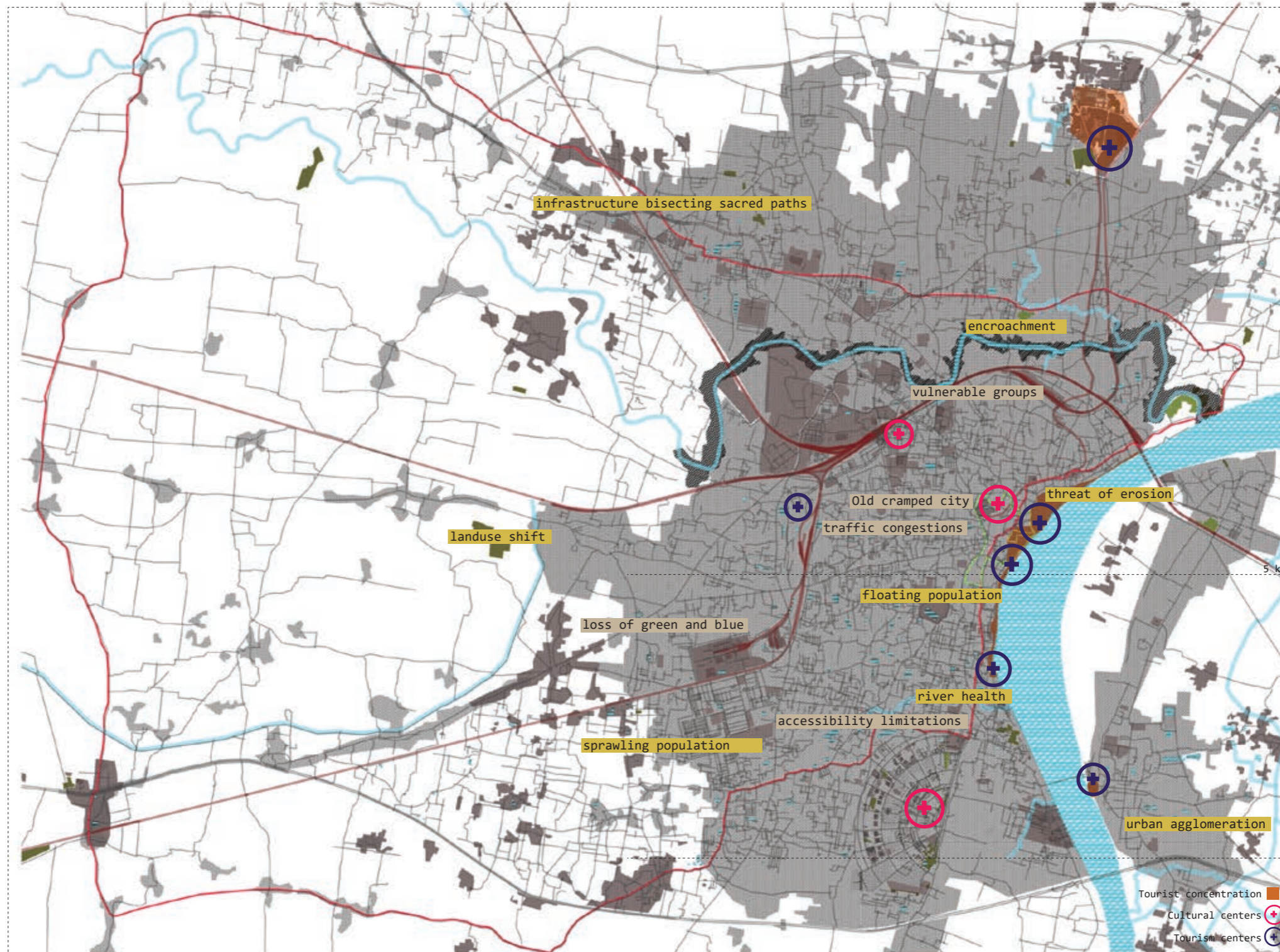
There is a lack of open space for any further development within the city

Ar. Abhinav Kaushal
Heritage Architect
&
Varanasi Smart City Official

The **strengths** and **opportunities** help to understand the synergies that exist within Varanasi region



The **threats** and **weakness** mapping identifies the conflicts that can be located in different parts of the city



4

VISION

For a Culturally Sustainable Varanasi

Varanasi from centuries is(was) landscape with strong **green** - **blue** networks living on a unique cultural **heritage** which was easily **accessible** for all.

The concept in the formulation of regional design and strategic framework focusses on **stitching the lost layers** of **green**, **blue**, **heritage** and **accessibility** in a **holistic way** such that Varanasi continues to remain as the **religious** as well as the **cultural capital** of India for future generations

For a Culturally Sustainable Varanasi

Varanasi from centuries is(was) landscape with strong **green** - **blue** networks living on a unique cultural **heritage** which was easily **accessible** for all.

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Revitalize



Regenerate



Restore

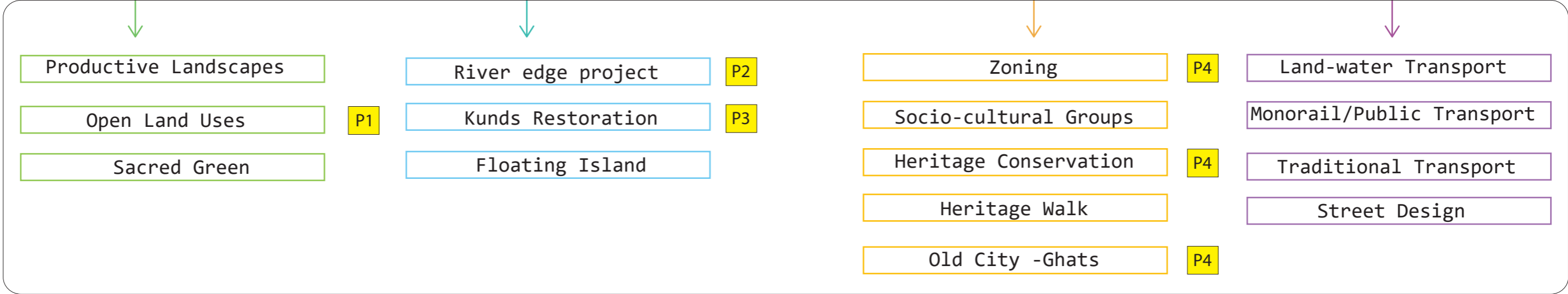


Reconstruct

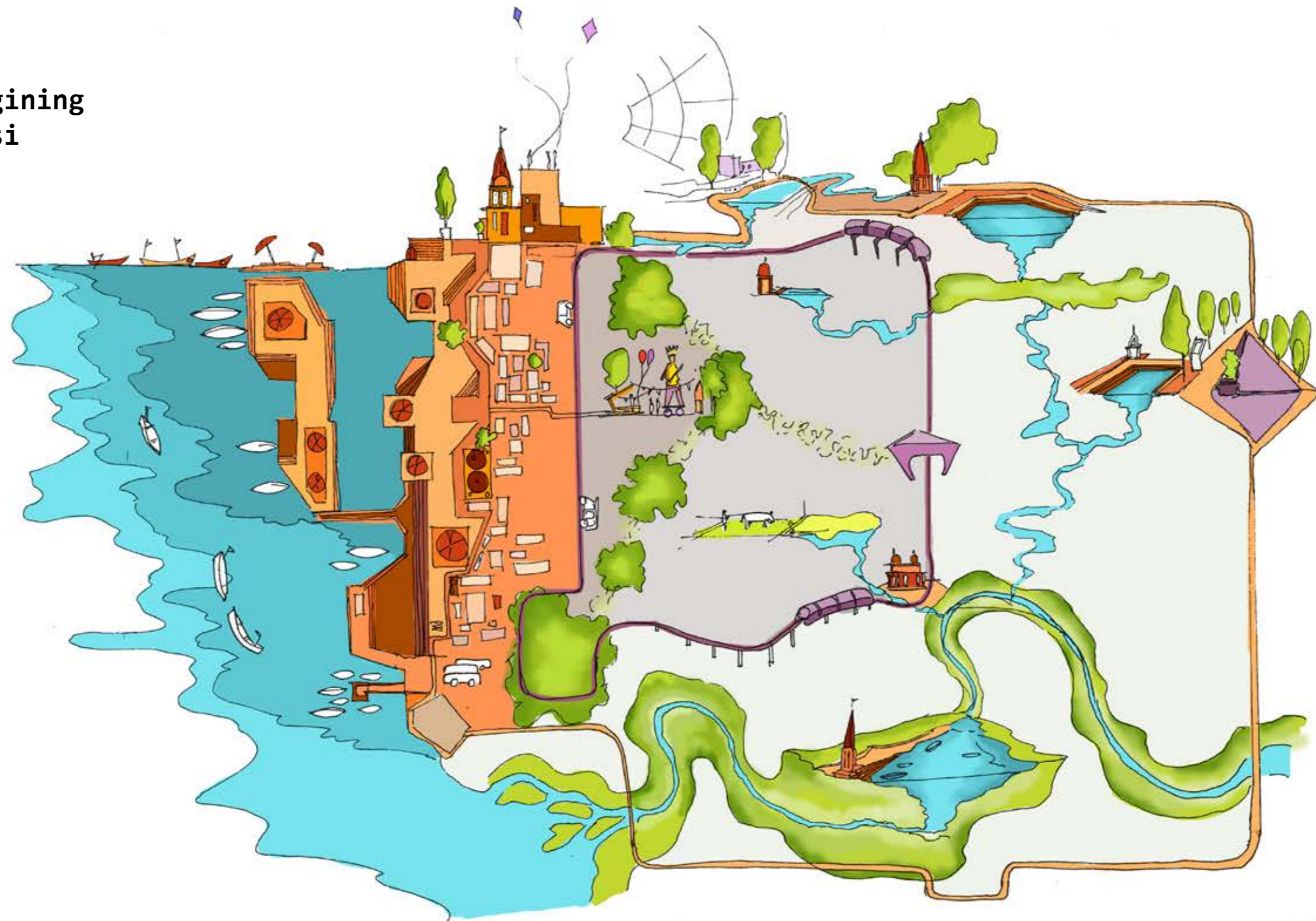


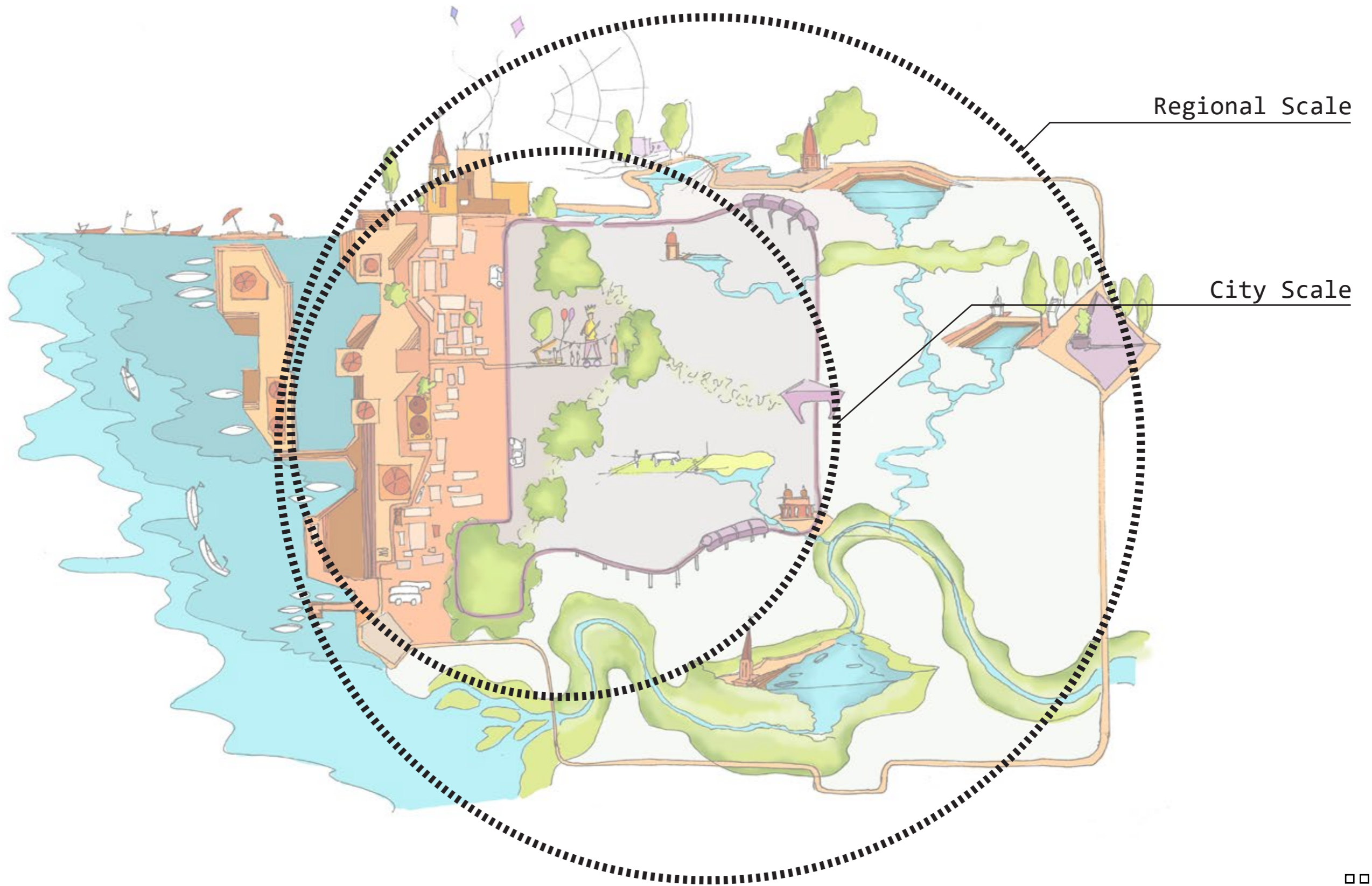
Regional Scale
Pilgrimage Path

City Scale



Re-Imagining Varanasi





5

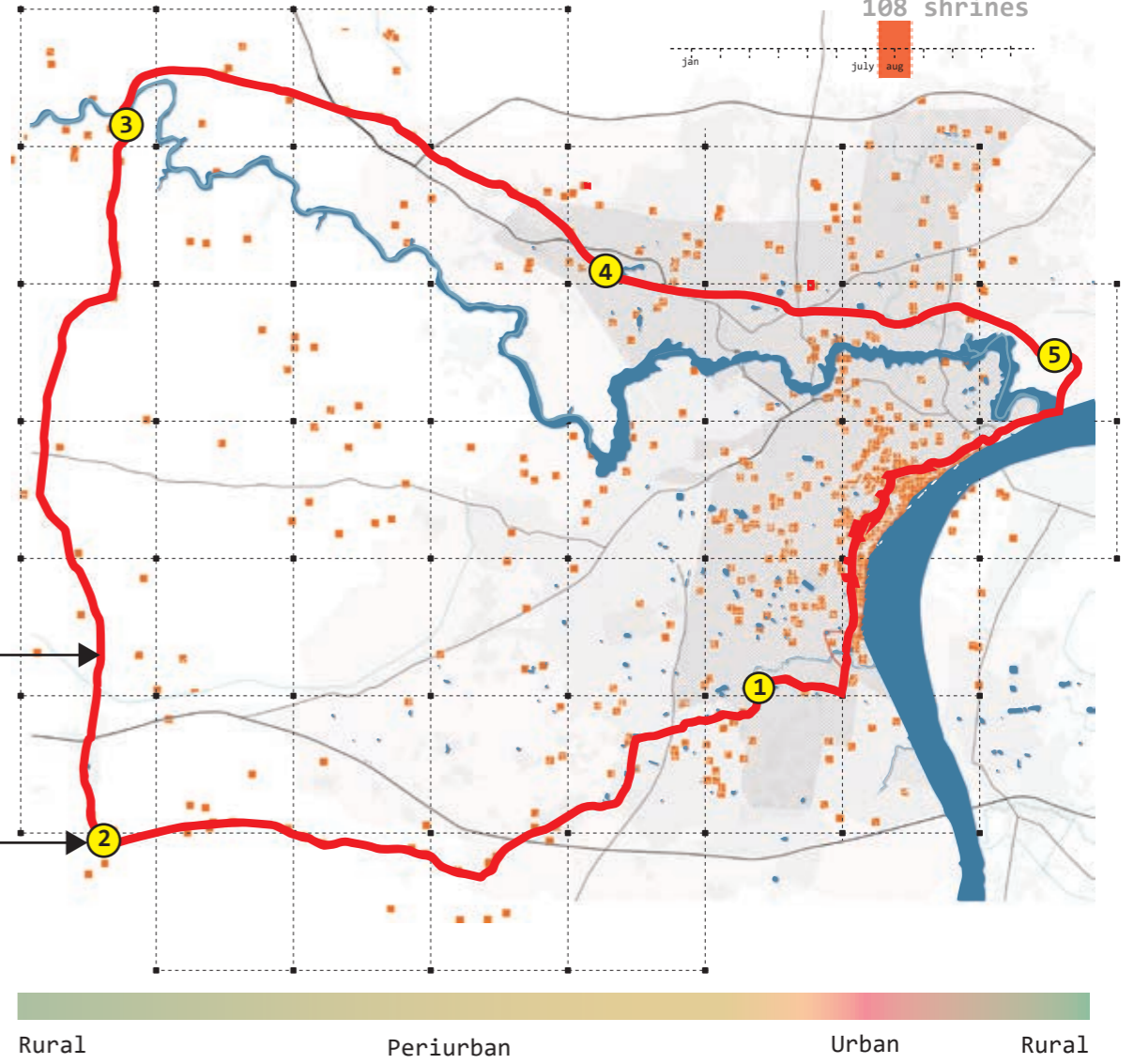
REGIONAL DESIGN

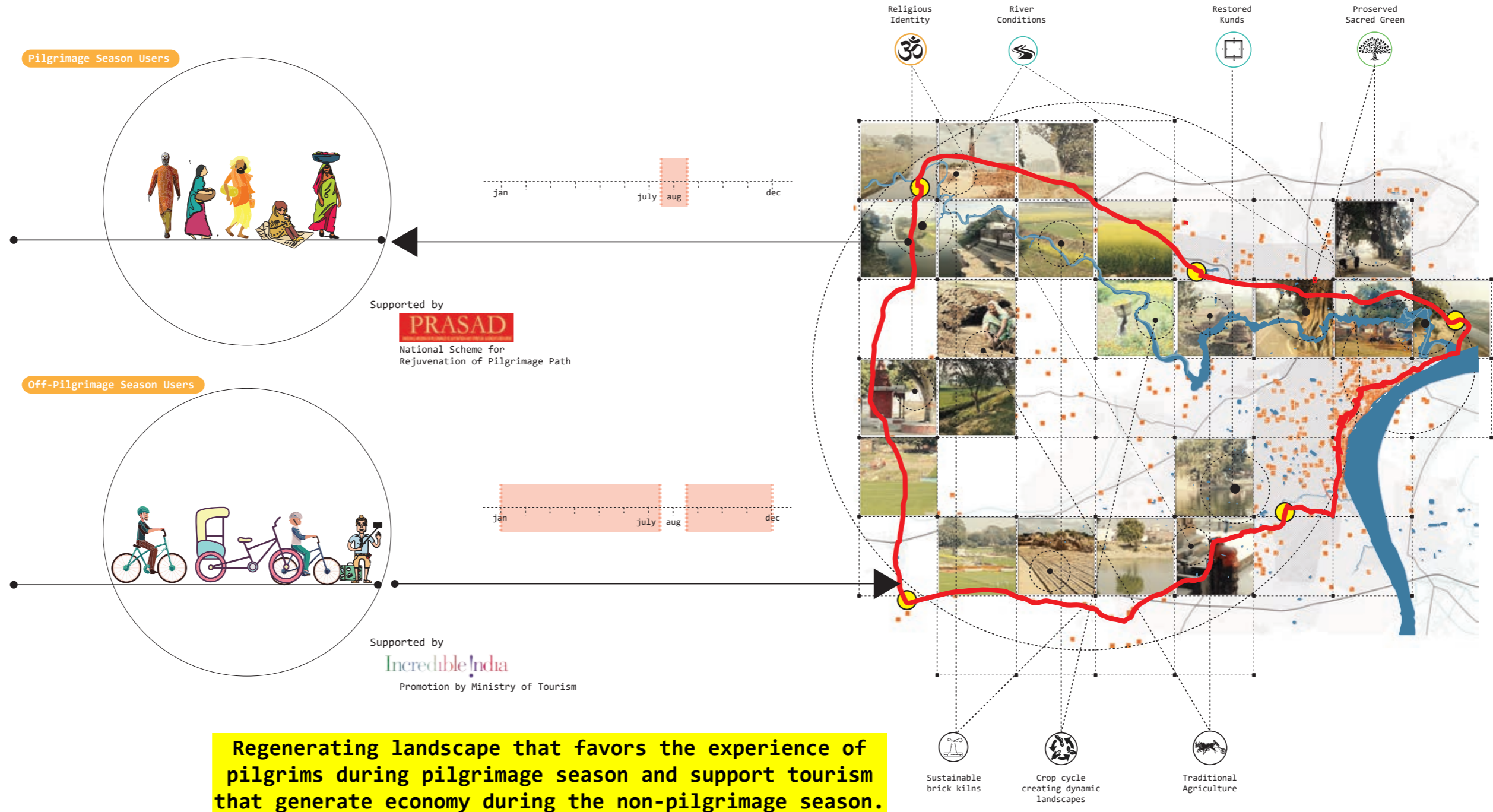
Regional Design

Panchakrosh
Pilgrimage
Path Design

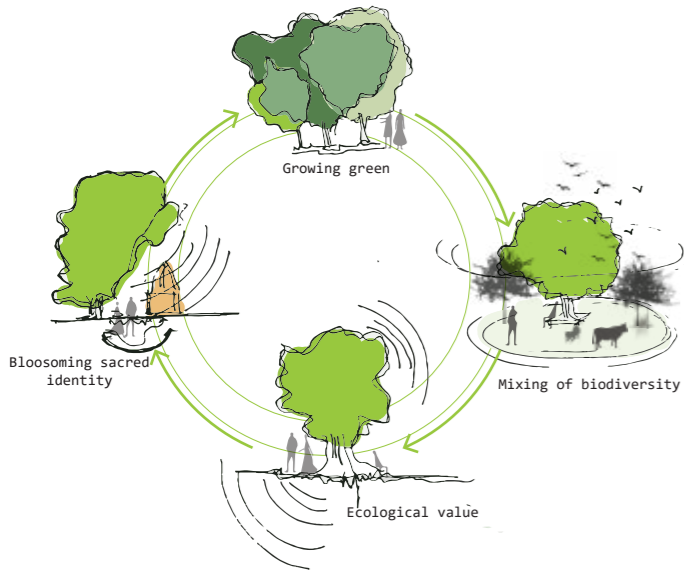
Cultural - ecological
Corridor
connecting Urban to rural

Tirtha
Physical Path
+
Padavs
5 halt stations

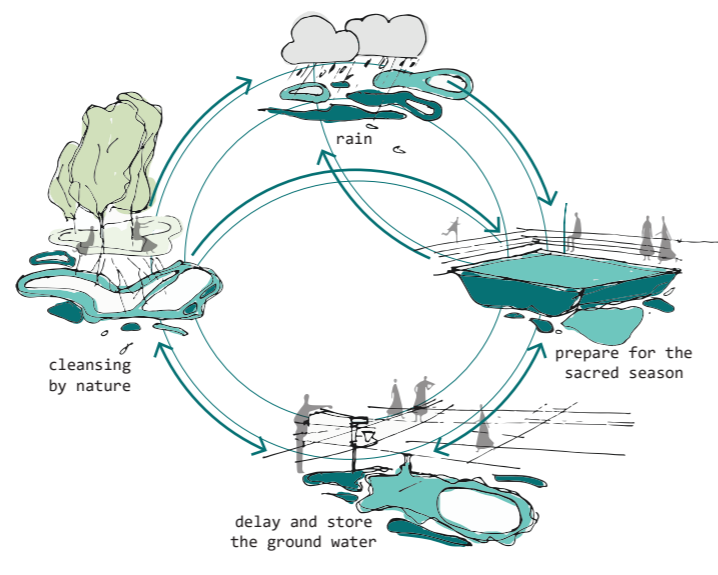




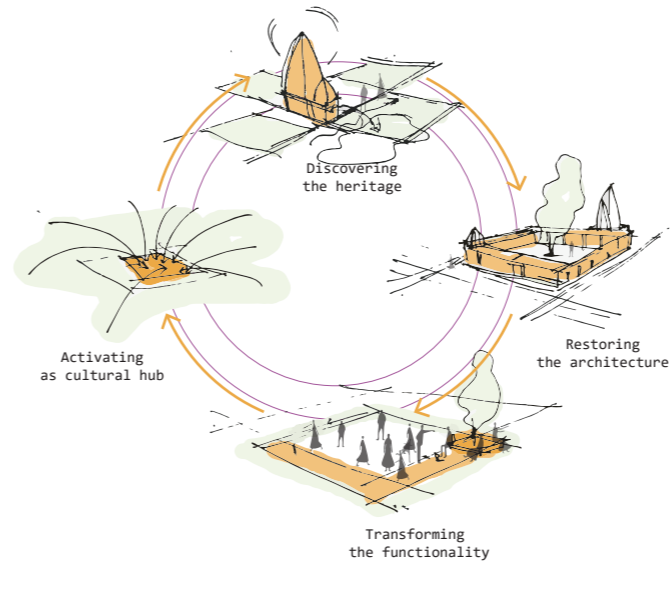
Components of Design



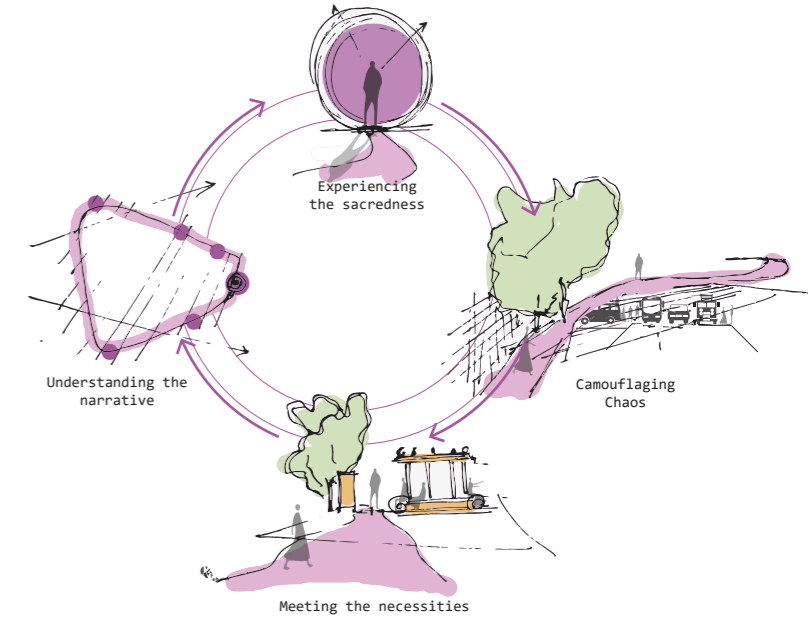
[sacred tree]



[sacred kund]



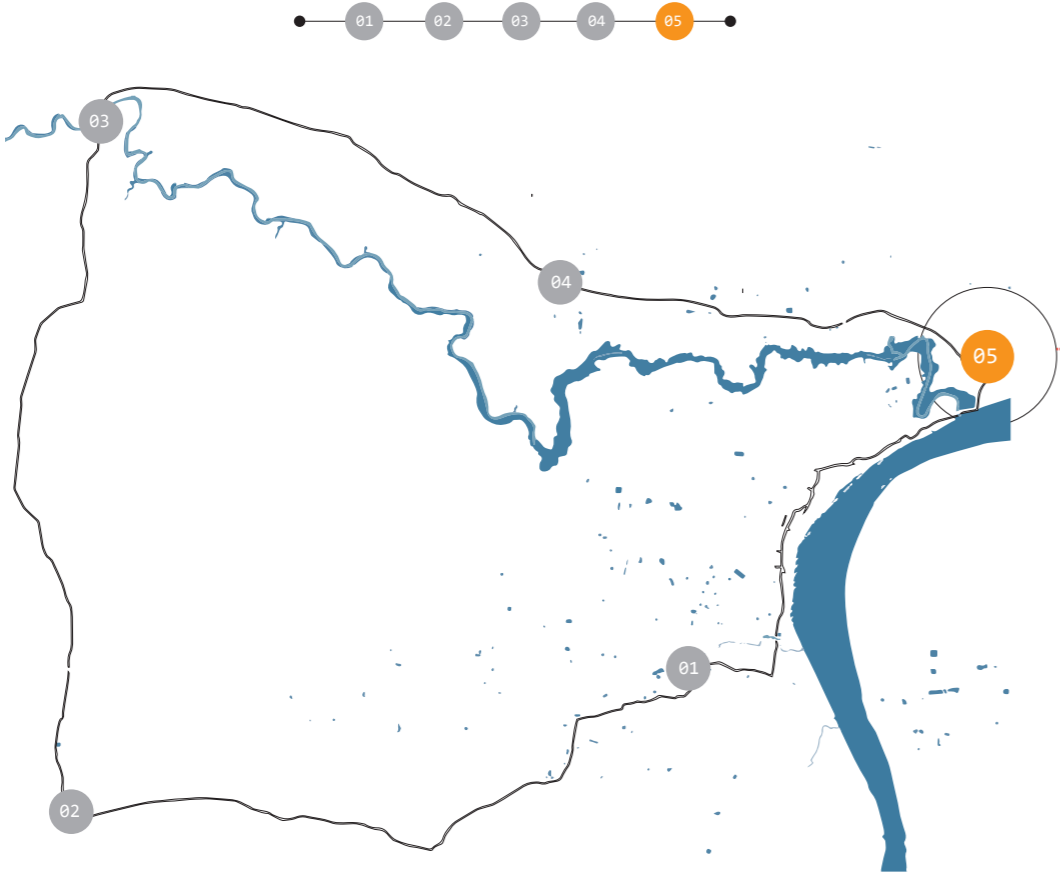
[dharamshala]



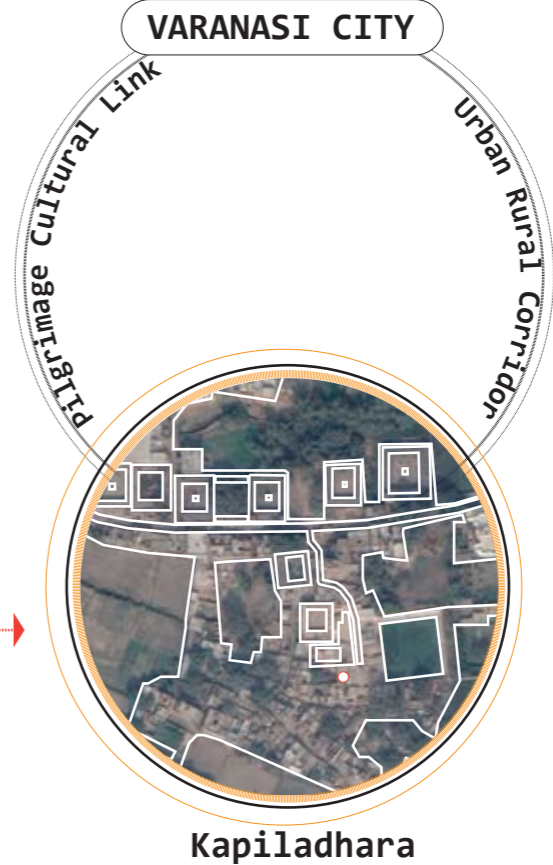
[Sacred Path]



Regional Design Site - Kapiladhara



5th Halt Location in Pilgrimage Path



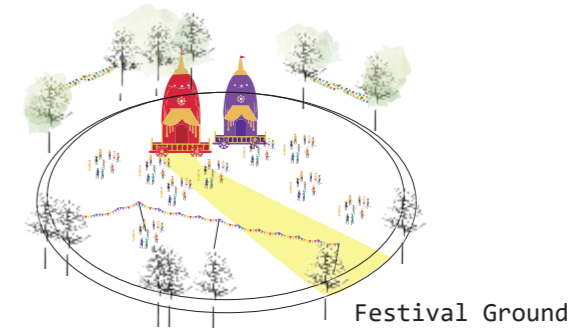
Source: Author



Kapiladhara Location

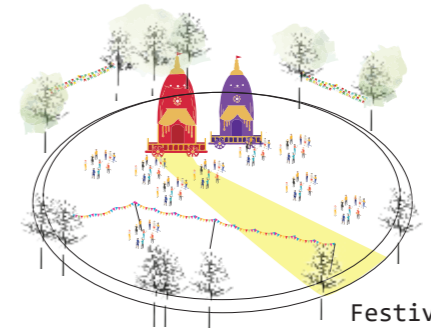
Pilgrimage Path

Varuna River

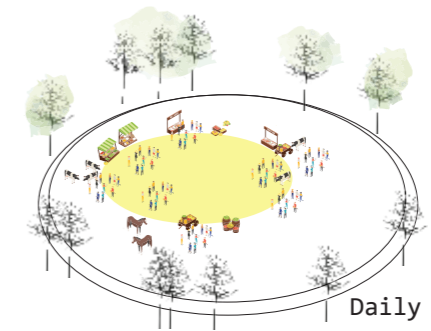




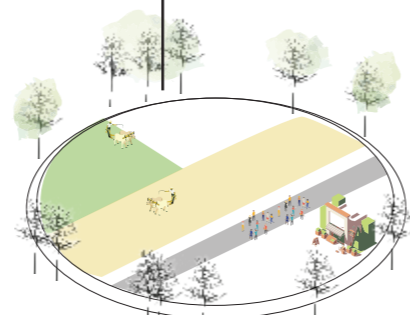
Market Fairs



Festival Ground



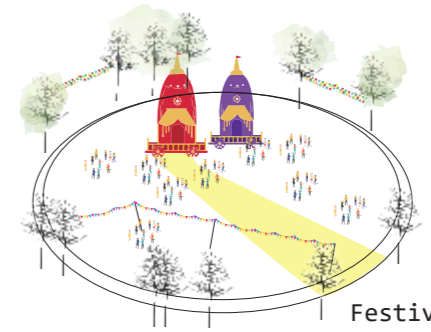
Daily Markets



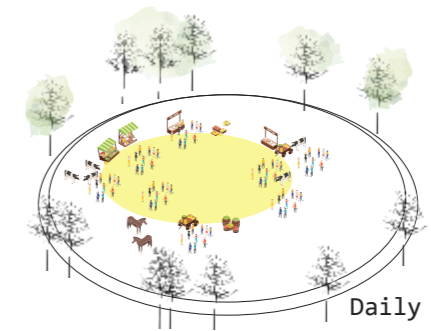
Agriculture Productive
landscapes



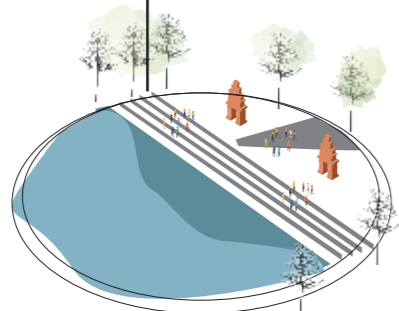
Market Fairs



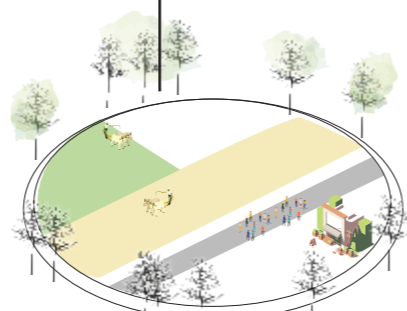
Festival Ground



Daily Markets



A strong social connection with the Varuna River



Agriculture Productive landscapes



6

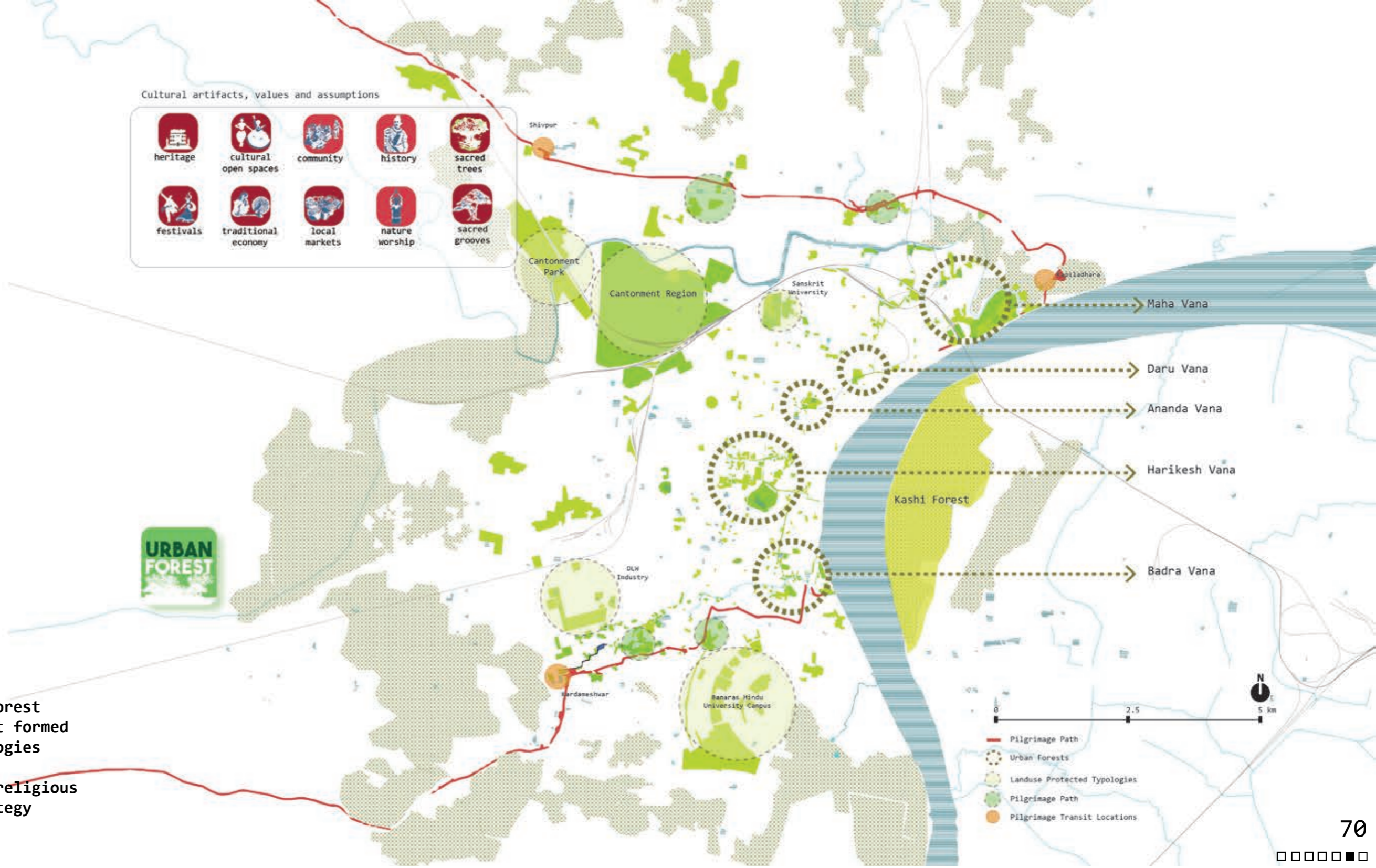
STRATEGIC FRAMEWORK

Strategic Framework



Strategic Framework





- Cultural artifacts, values and assumptions
- heritage
 - cultural open spaces
 - community
 - history
 - sacred trees
 - festivals
 - traditional economy
 - local markets
 - nature worship
 - sacred grooves

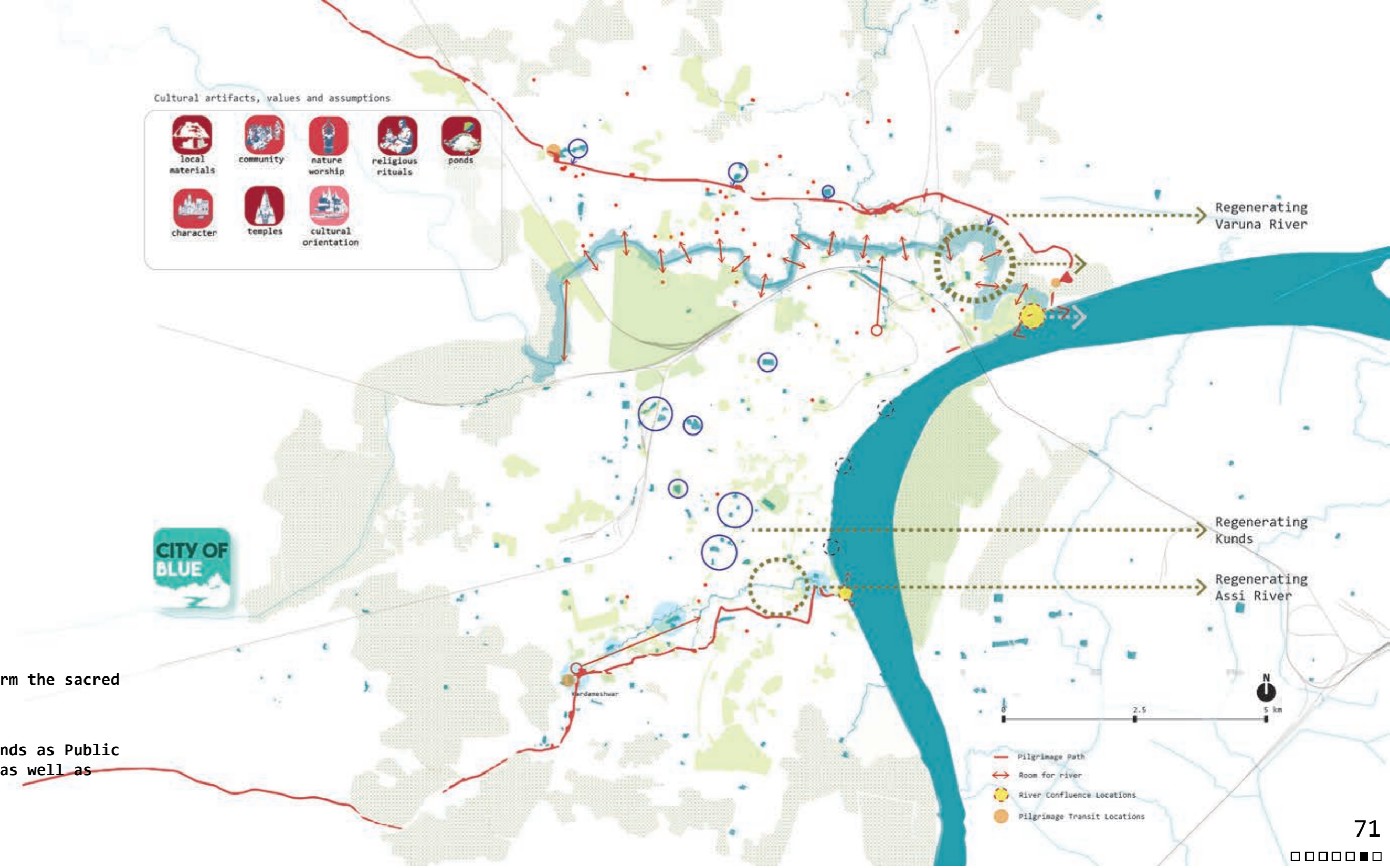
Cultural Reasoning

Revitalizing green where urban Forest locations relate to 5 forests that formed Varanasi as a landscape in Mythologies

Sacred Green is used as a social-religious concept driving Urban forest strategy

Cultural artifacts, values and assumptions

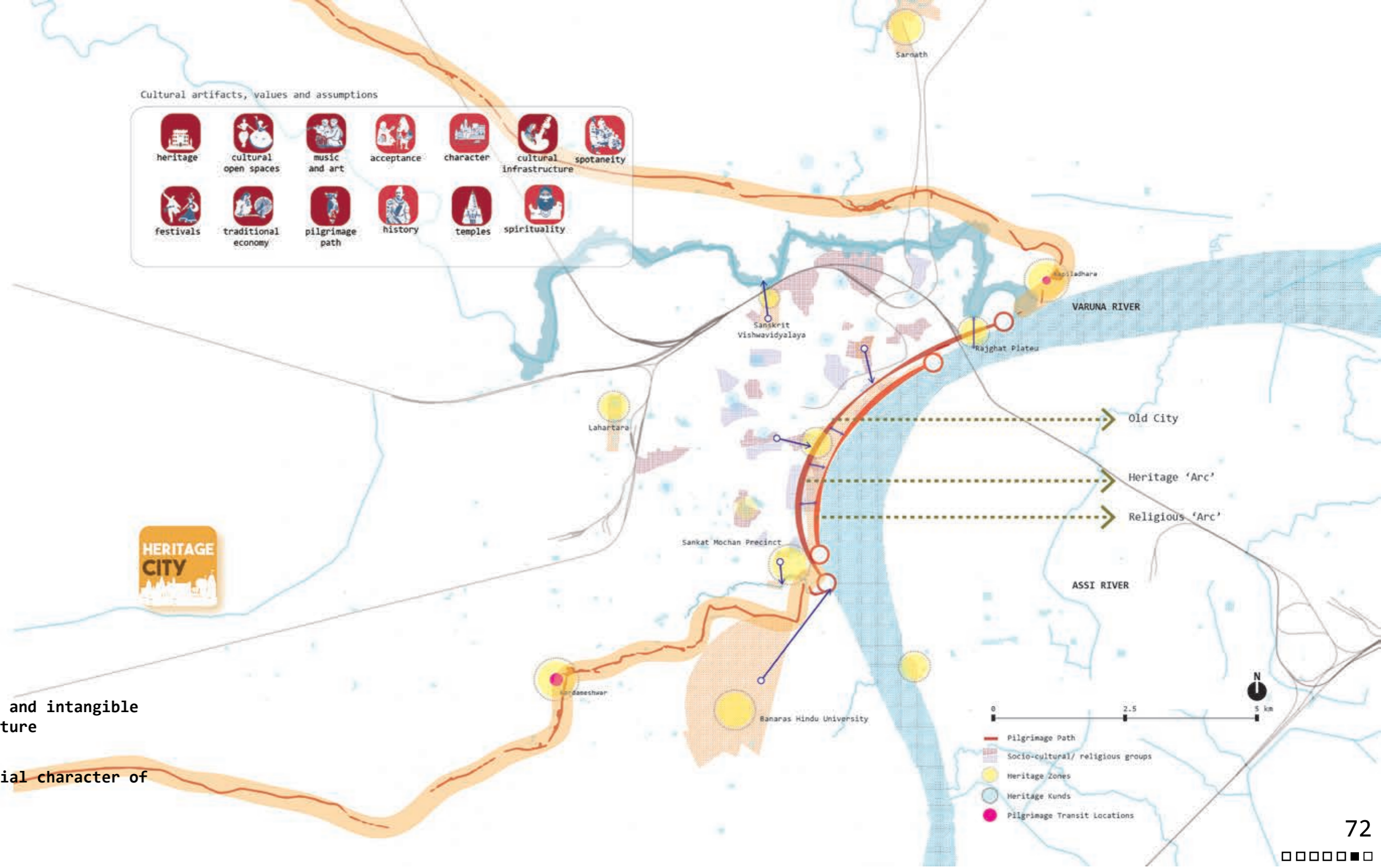
 local materials	 community	 nature worship	 religious rituals	 ponds
 character	 temples	 cultural orientation		



Cultural Reasoning

Regenerating the rivers that form the sacred identity of Varanasi

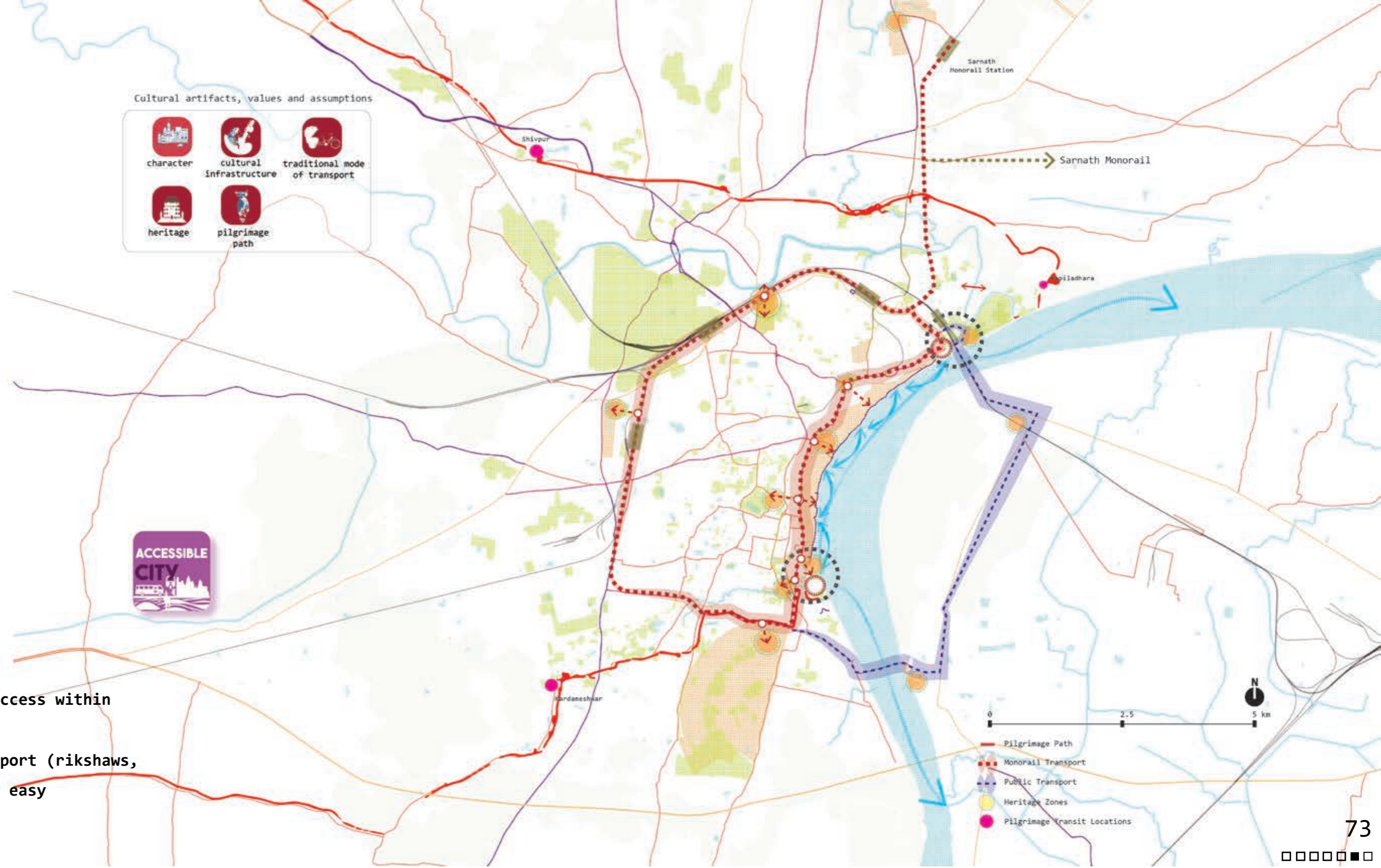
Regenerating the traditional Kunds as Public spaces that meets the religious as well as physical needs



Cultural Reasoning

Restoring the layers of tangible and intangible Heritage with improved infrastructure

Restoring the ecological and social character of Pilgrimage path



Cultural Reasoning

Reconstructing the easiness of access within Varanasi city

Use of traditional modes of transport (rikshaws, cycles and boats) to **re**construct easy accessibility

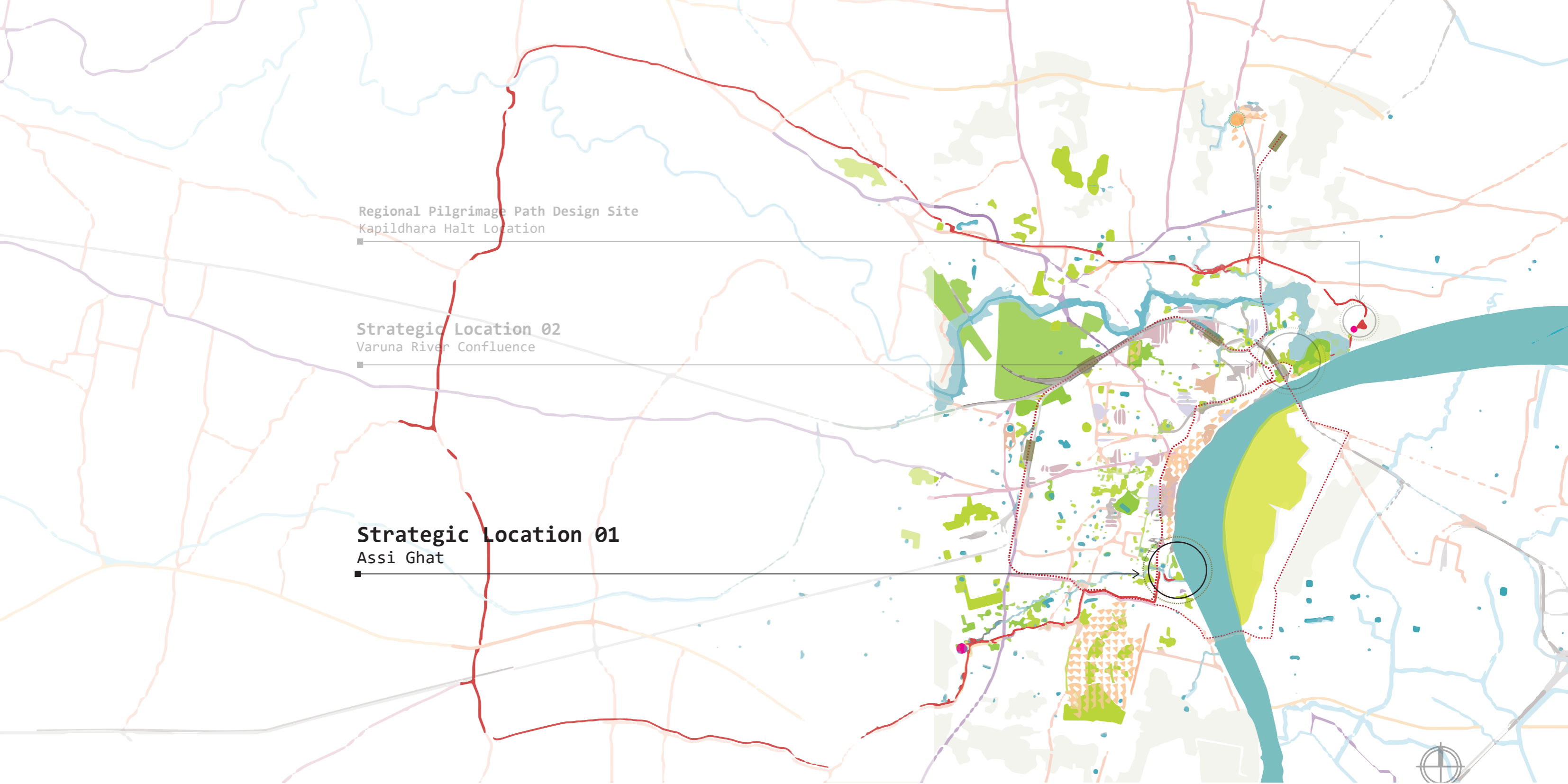
Holistic Strategic Design
overlaying all the 4
strategies



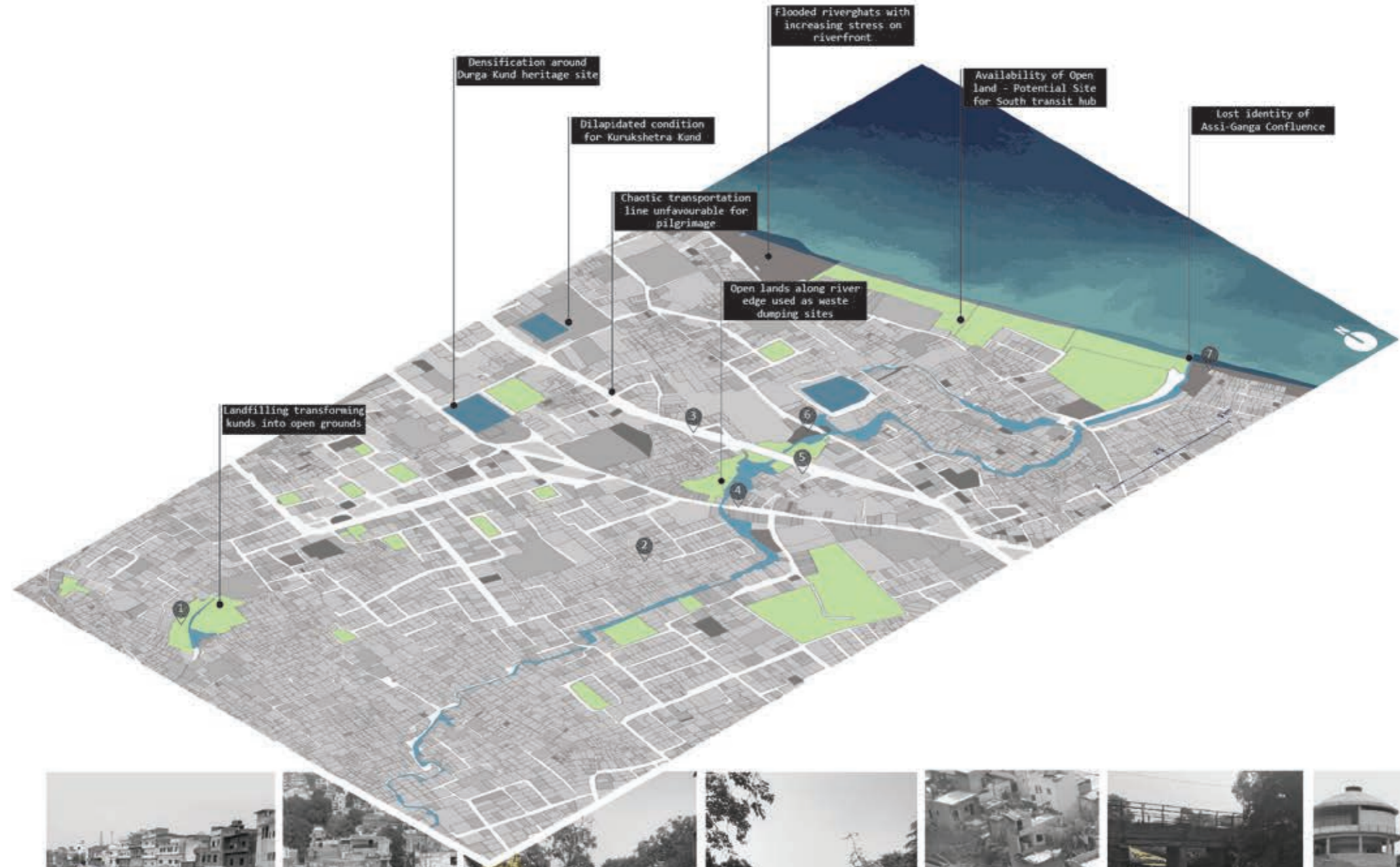
Regional Pilgrimage Path Design Site
Kapildhara Halt Location

Strategic Location 02
Varuna River Confluence

Strategic Location 01
Assi Ghat



Existing Conditions



Productive Landscapes
Sacred Green



Panoramic View of edges of Assi River

River edge
Kunds Restoration
Floating Island



Panoramic View of Assi river Confluence

Pilgrimage Path
Heritage Zoning
Heritage Walk



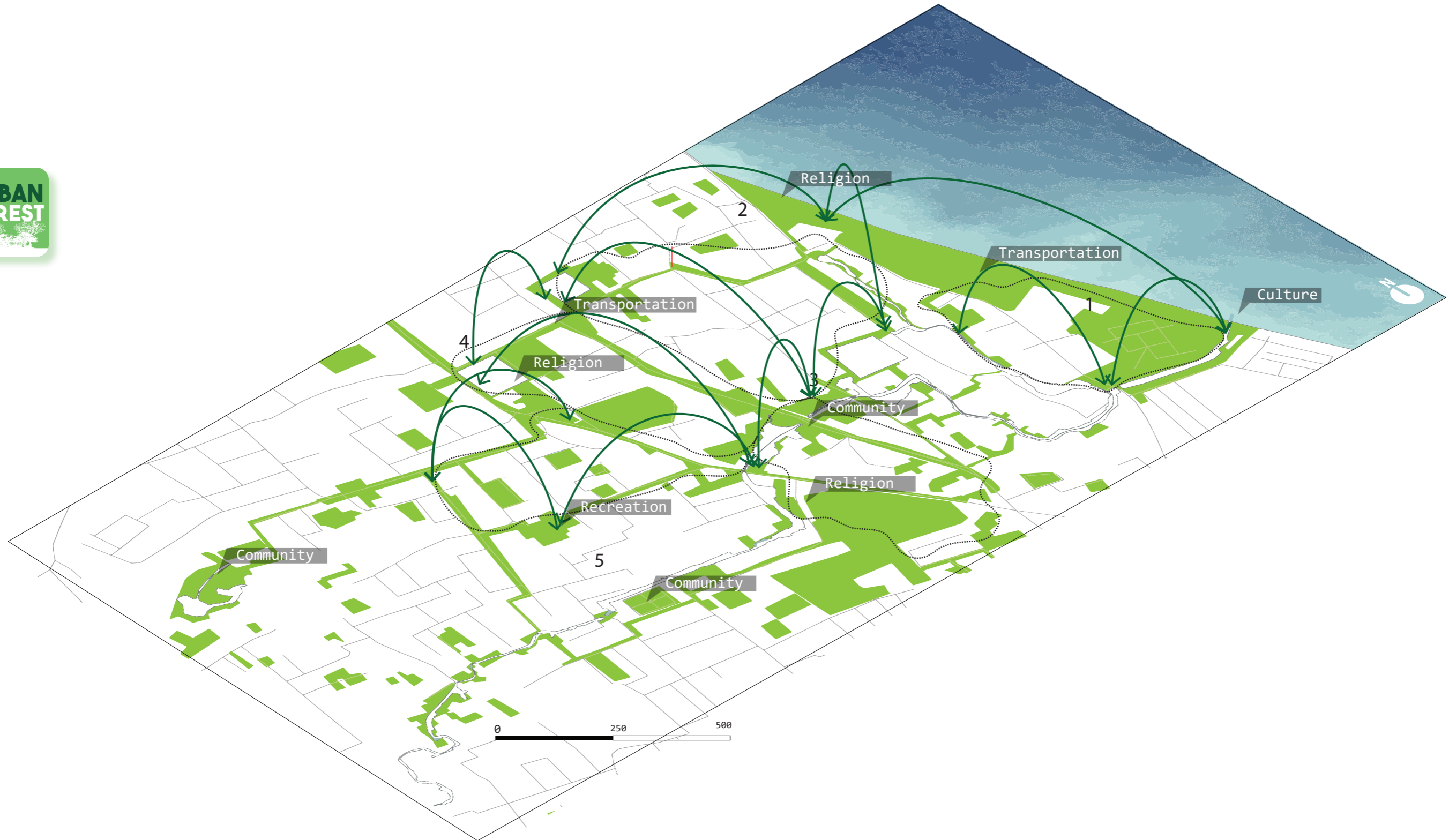
Panoramic View of Assi Ghat

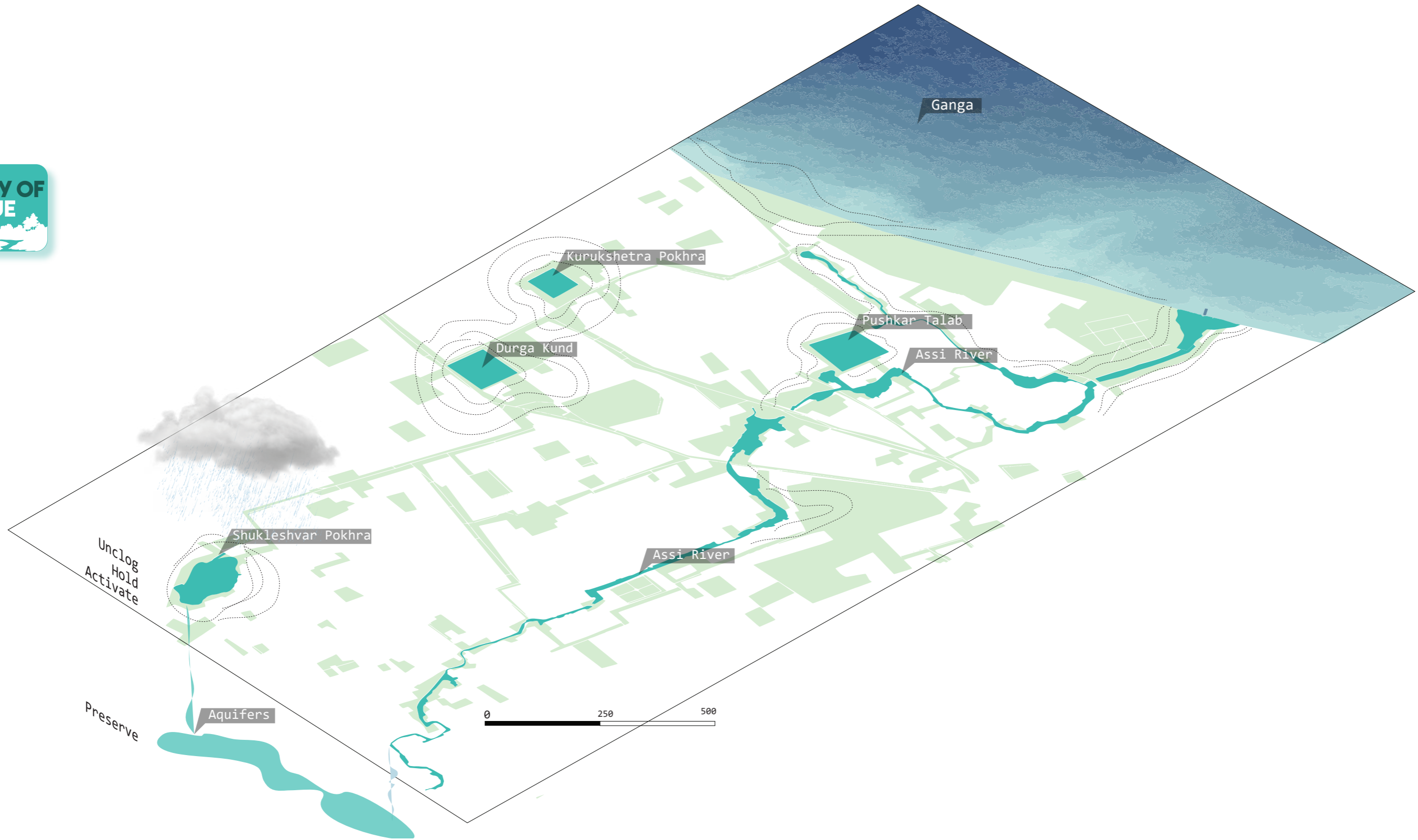
Land-water Transport
Monorail/Public Transport
Traditional Transport
Street Design

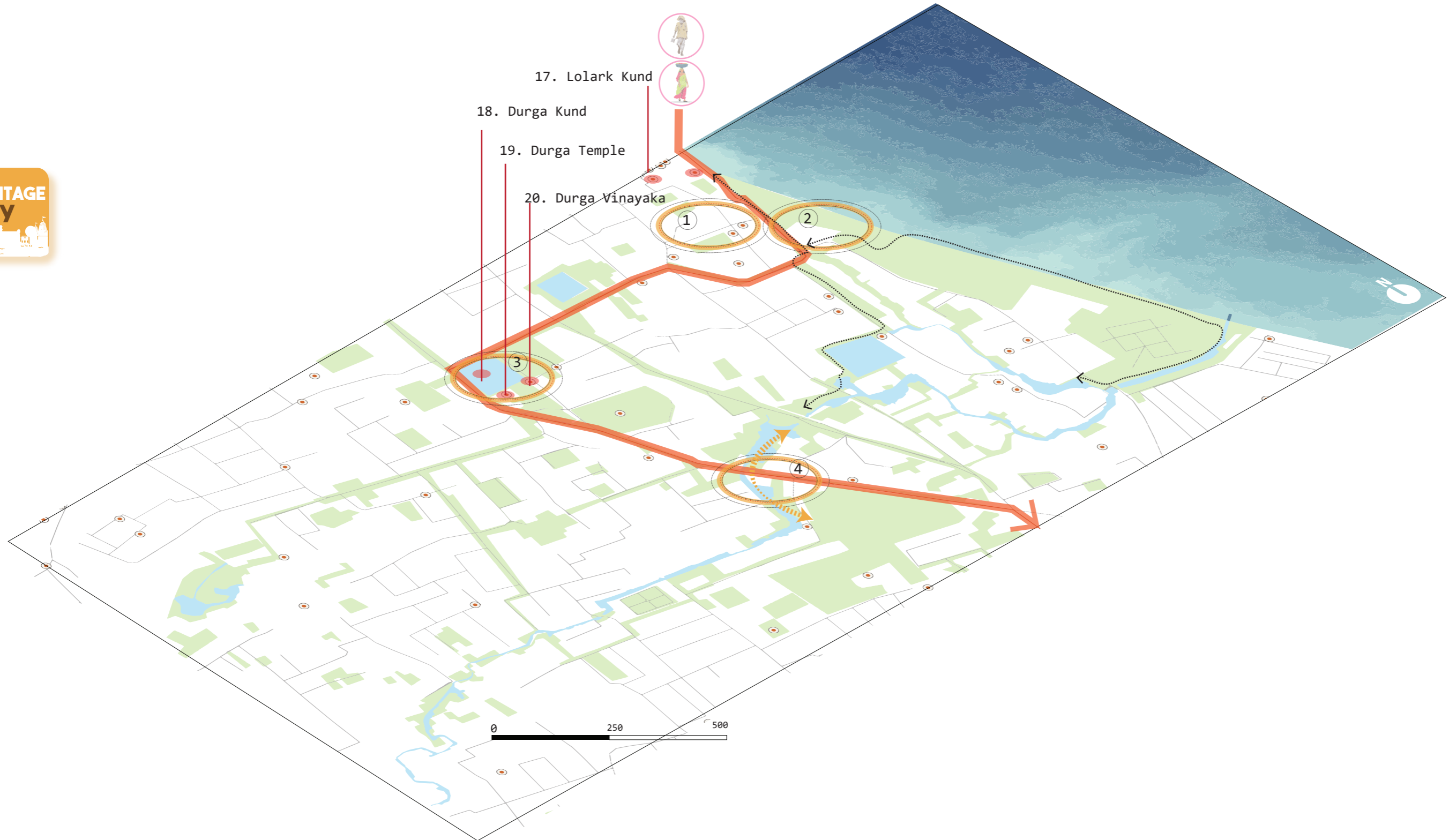


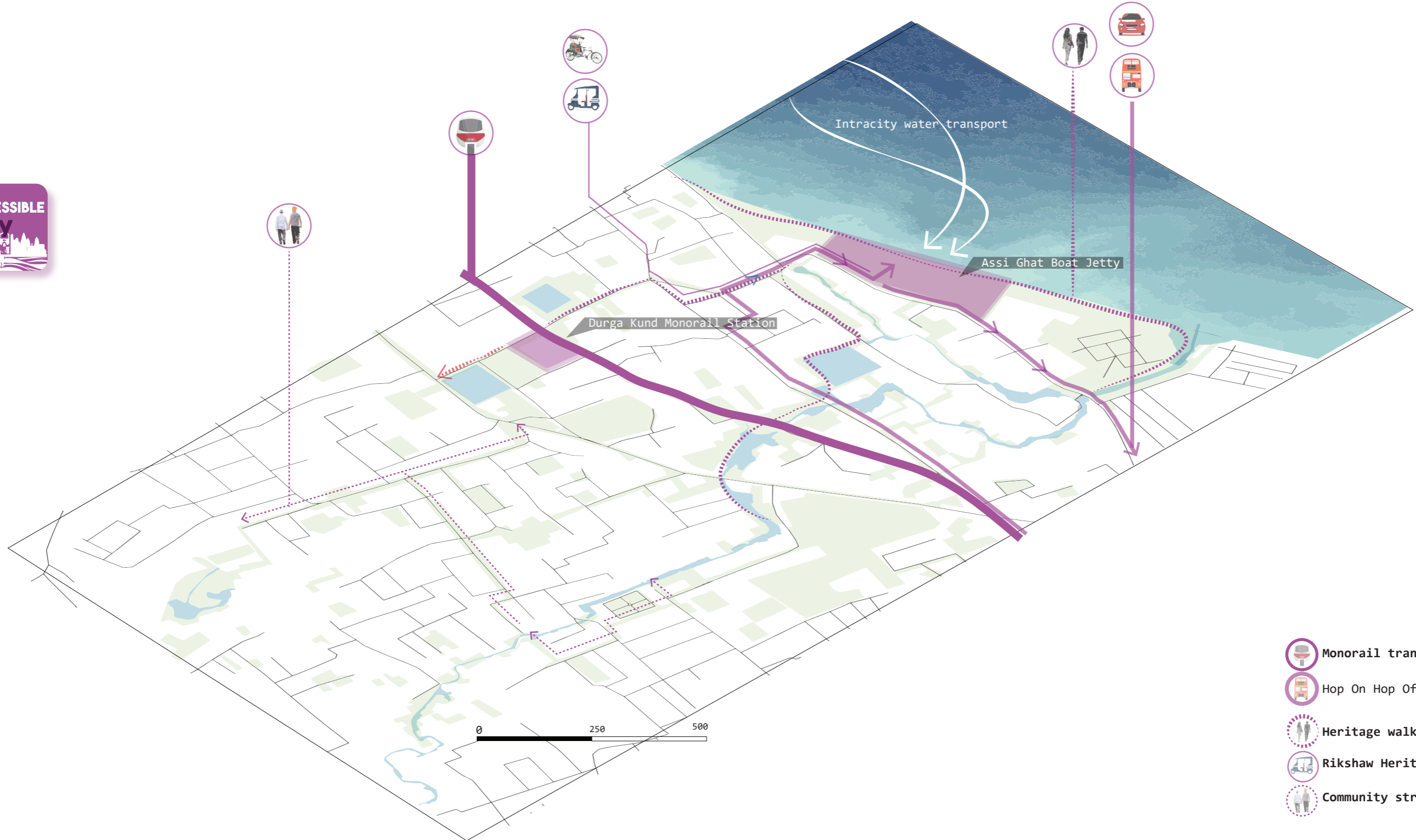
Panoramic View of Assi Region






Source: Author









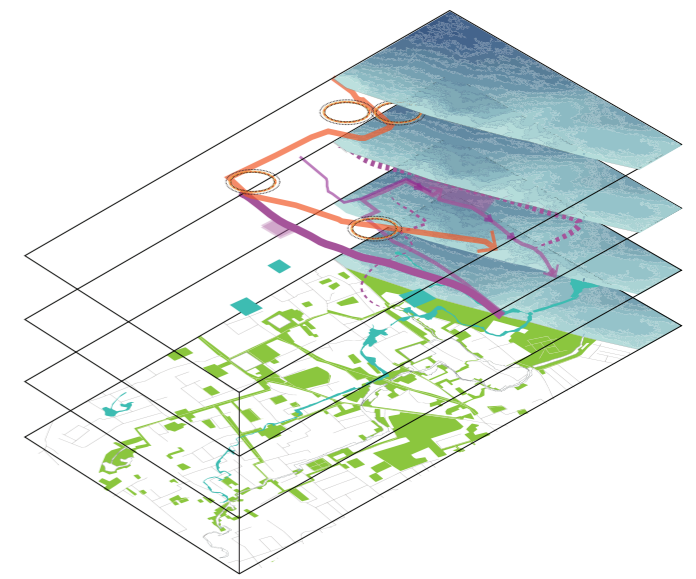
-  Monorail transport
-  Hop On Hop Off Bus
-  Heritage walk
-  Rickshaw Heritage ride
-  Community streets



The **intersection of 4 strategies** helps in creating a **HOLISTIC DESIGN** .



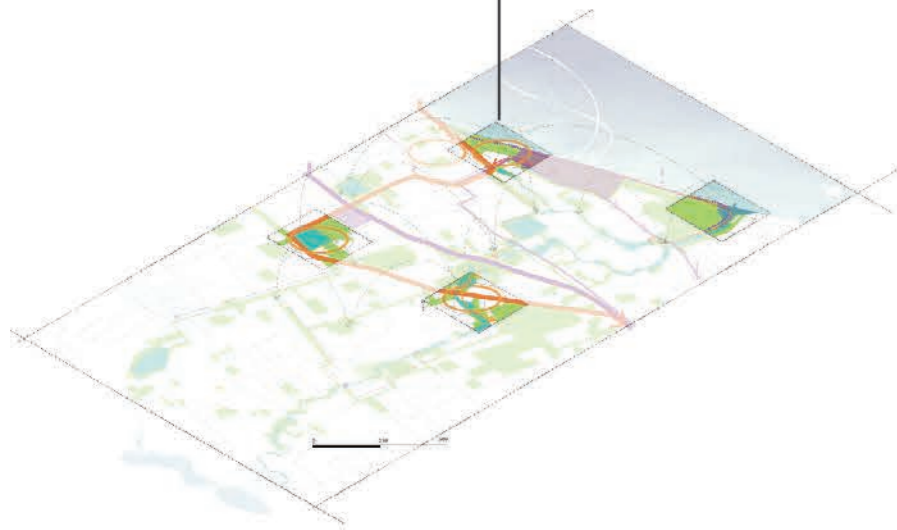
Combined Layers of strategies



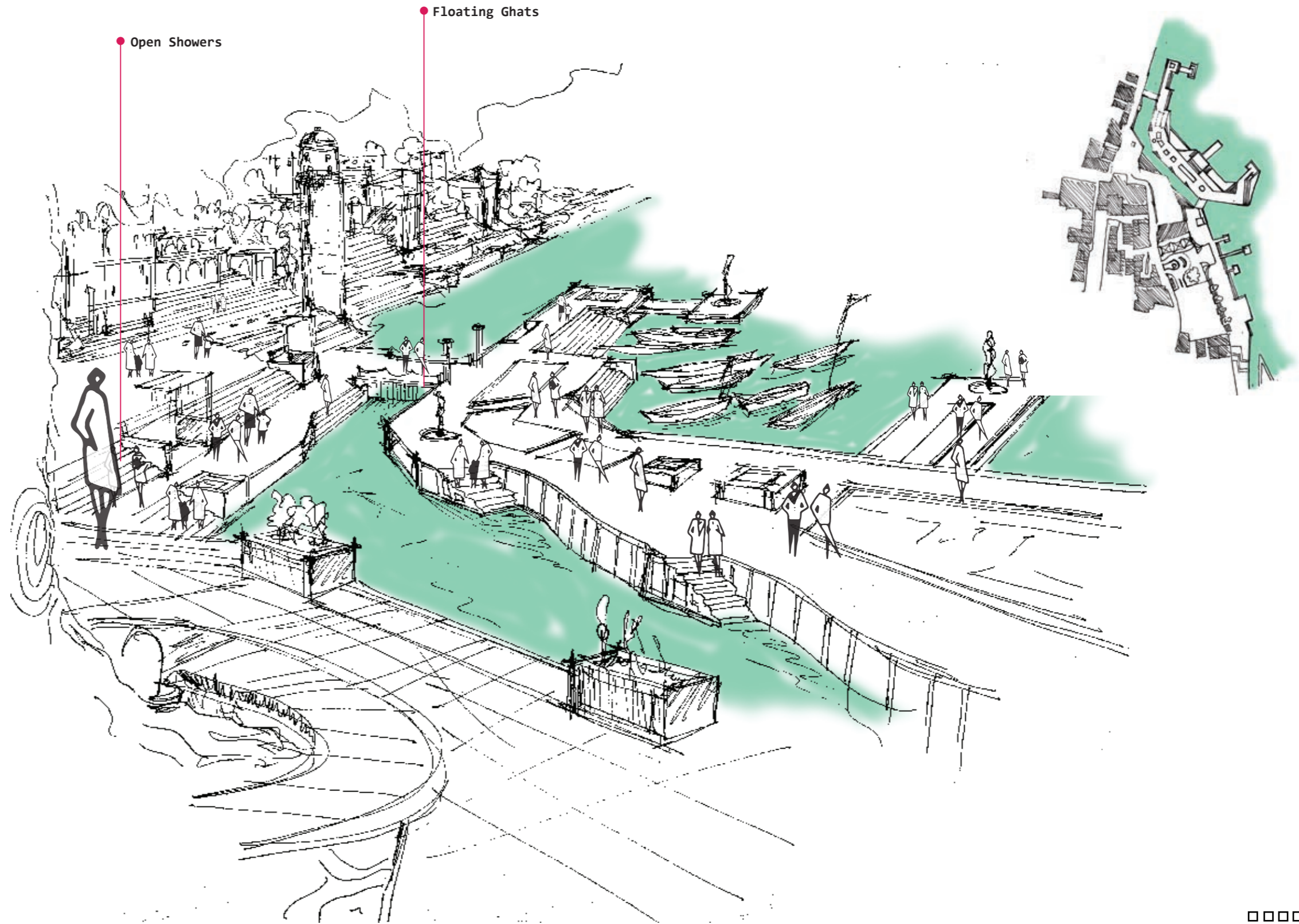
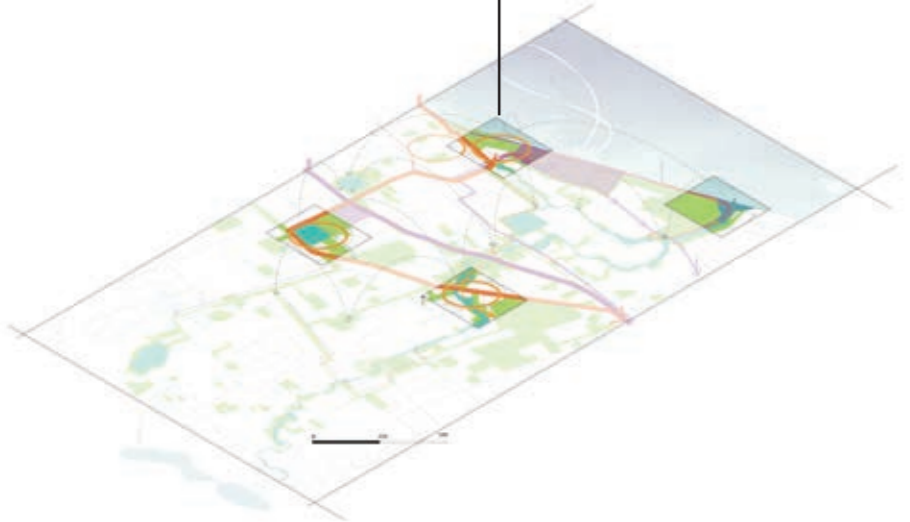
Strategic Zoom Ins



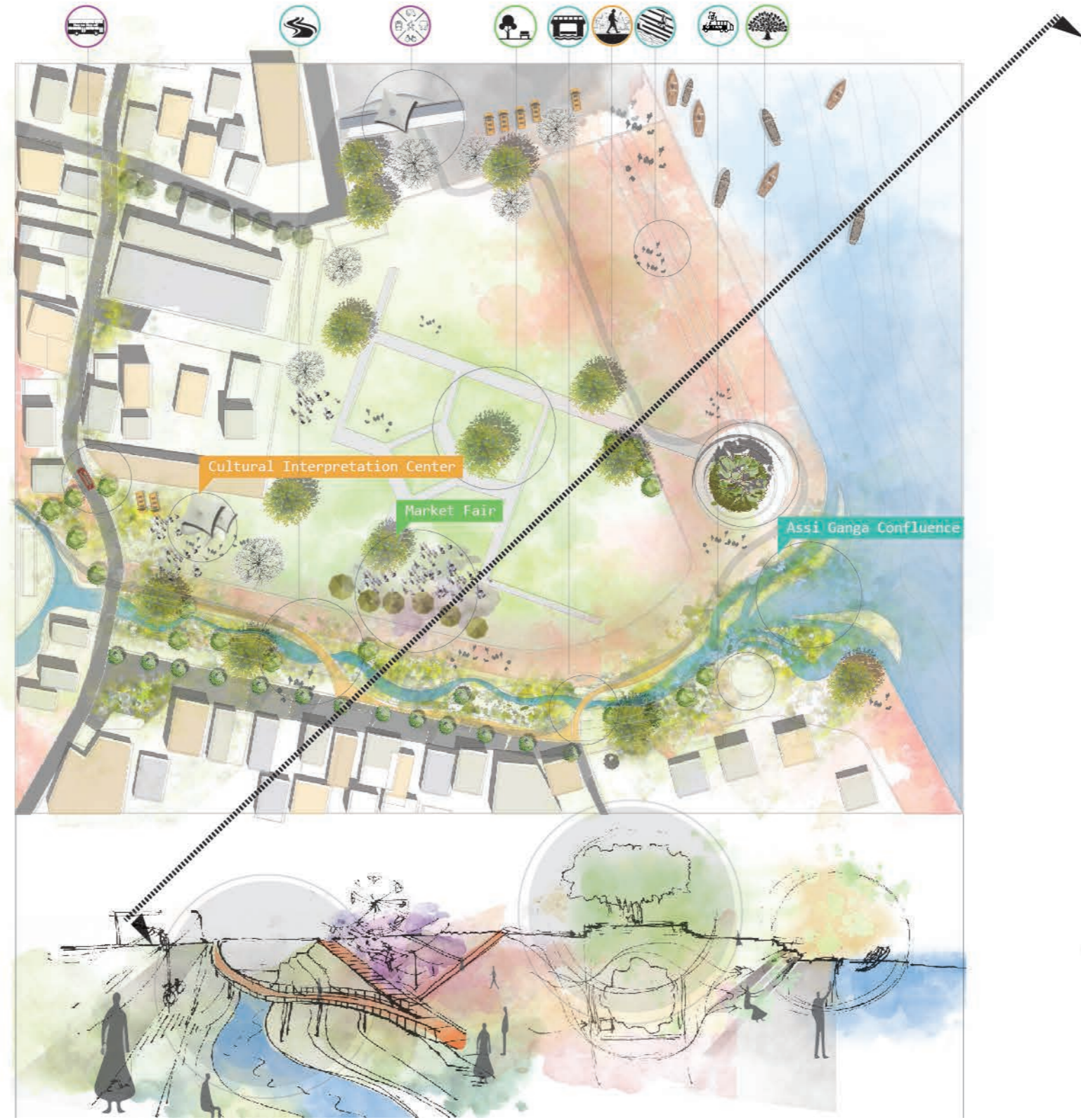
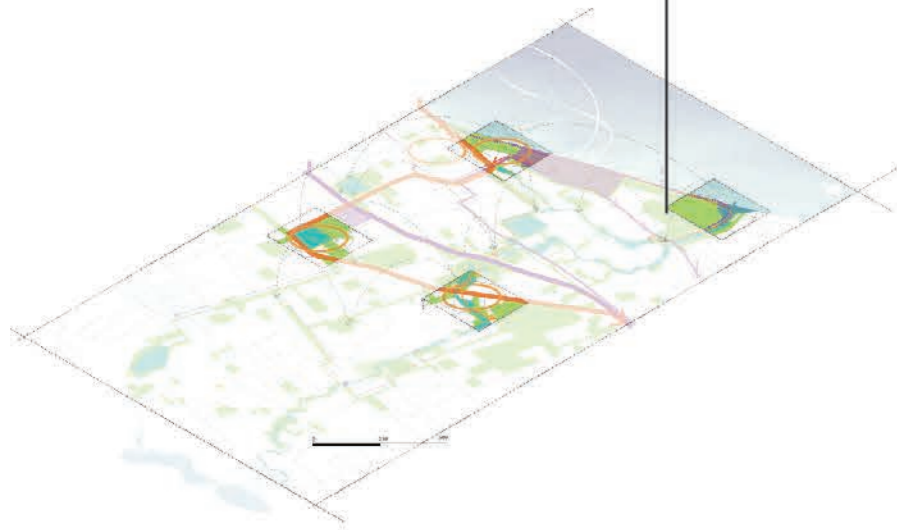
Strategic Zoom in 01
Assi Ghat



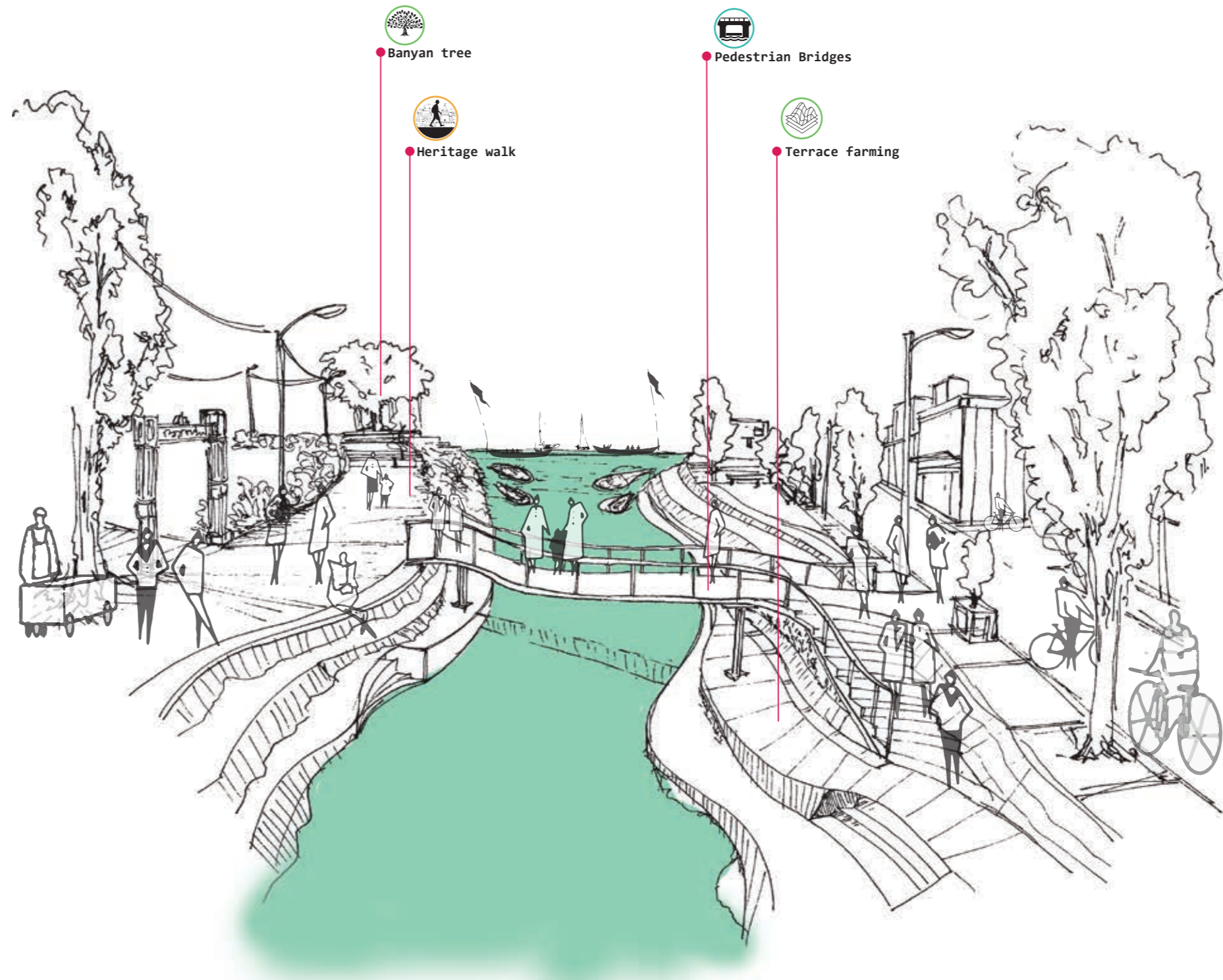
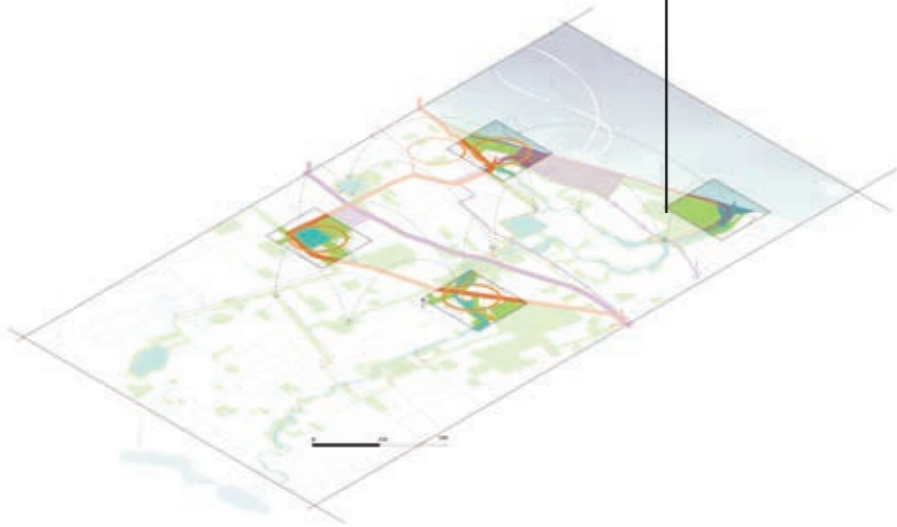
Strategic Zoom in 01
Assi Ghat



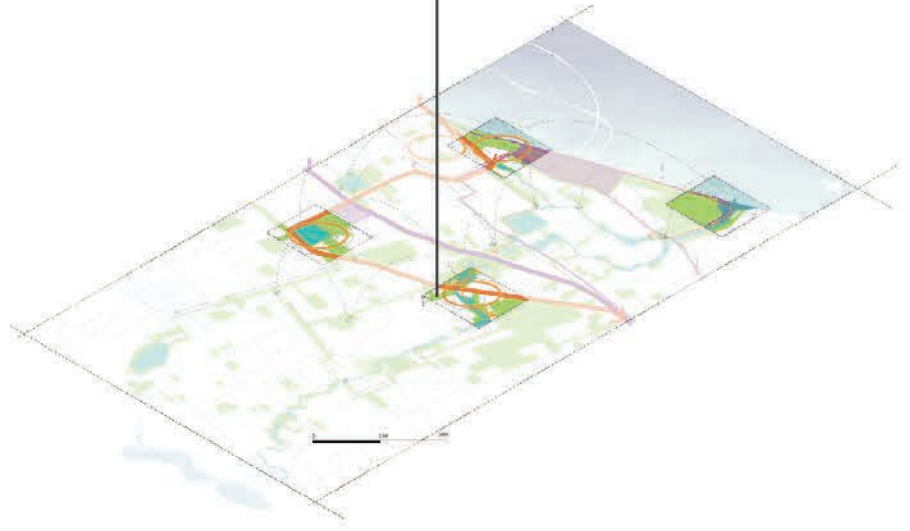
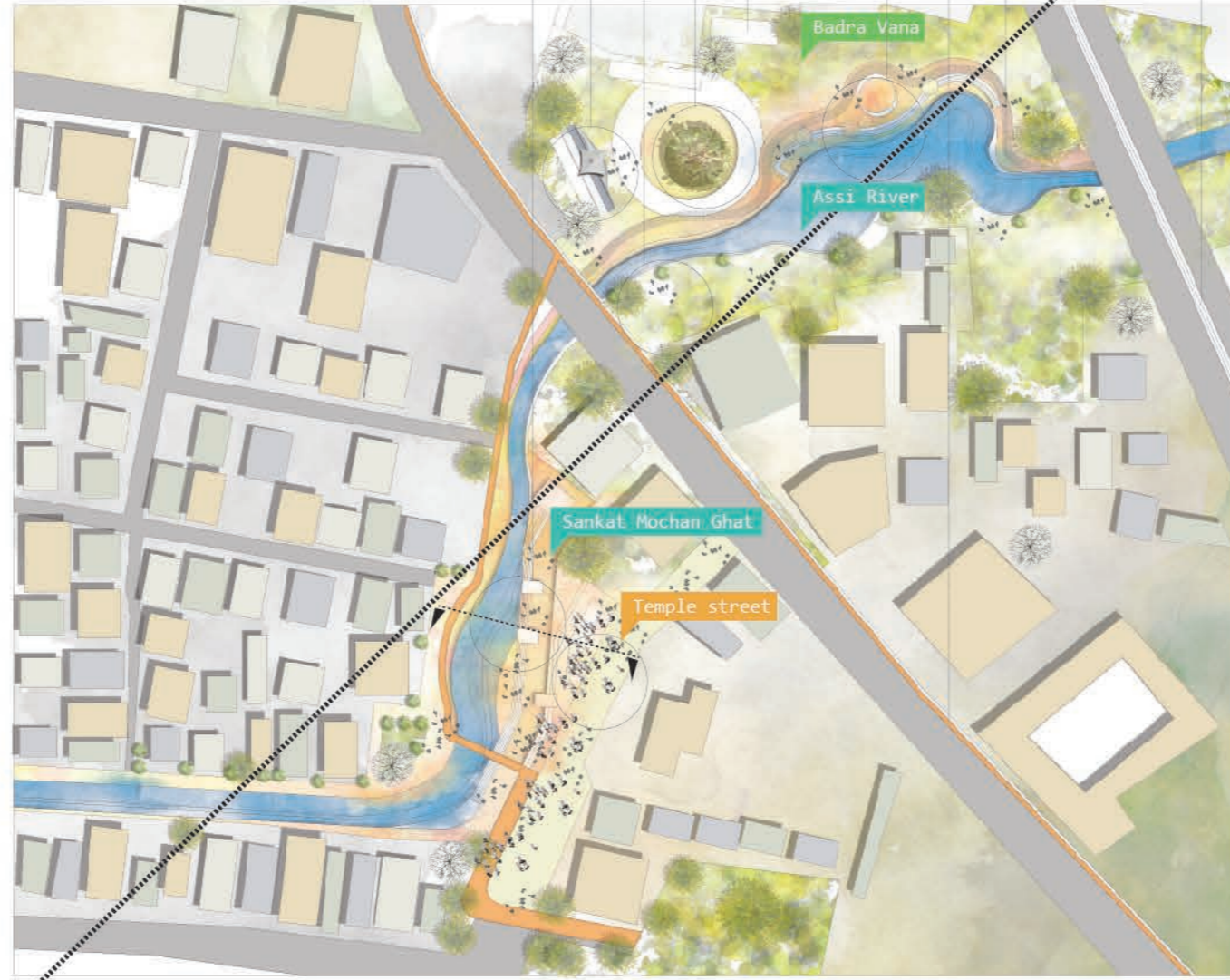
Strategic Zoom In - 02
Assi Ganga Confluence



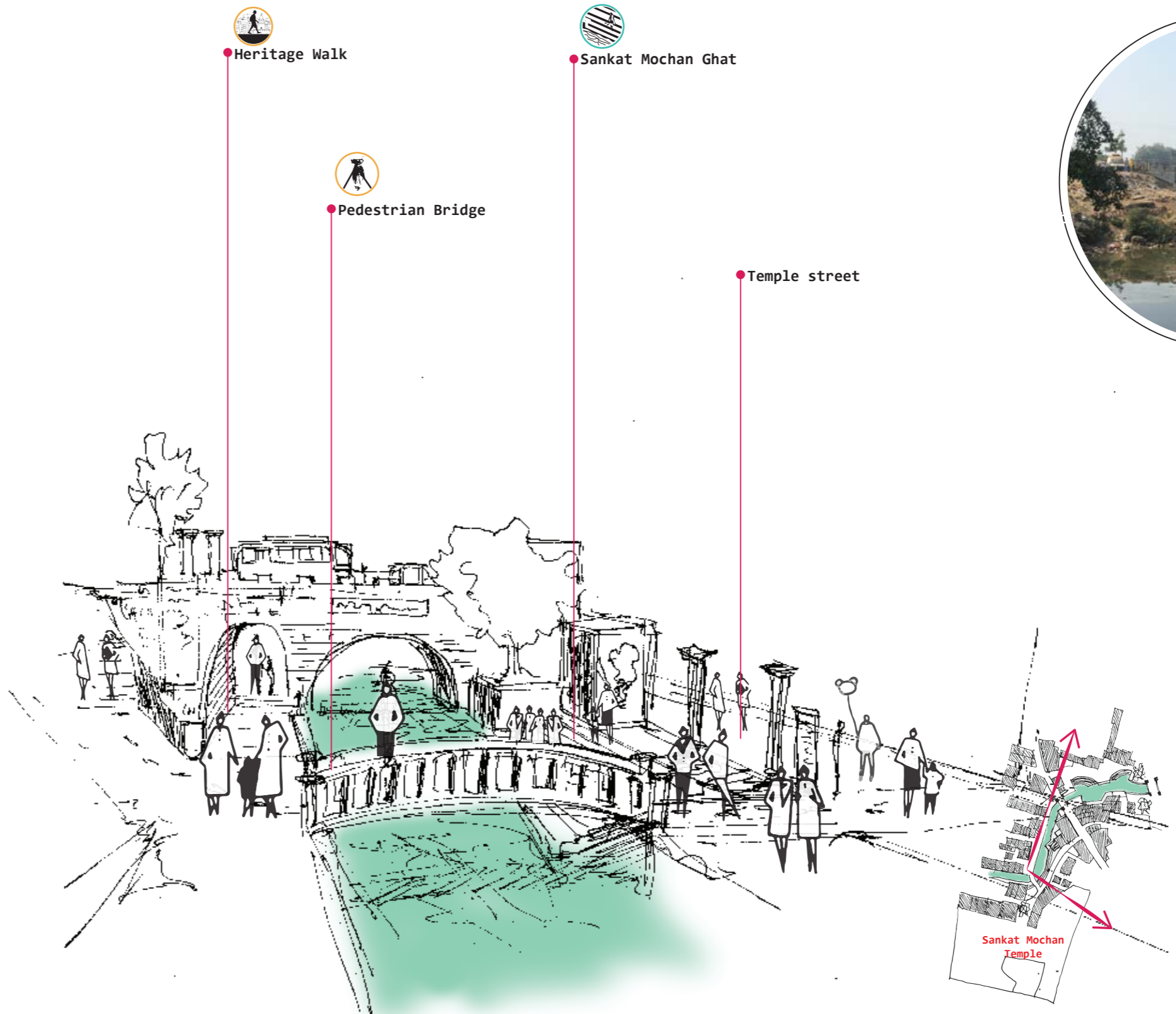
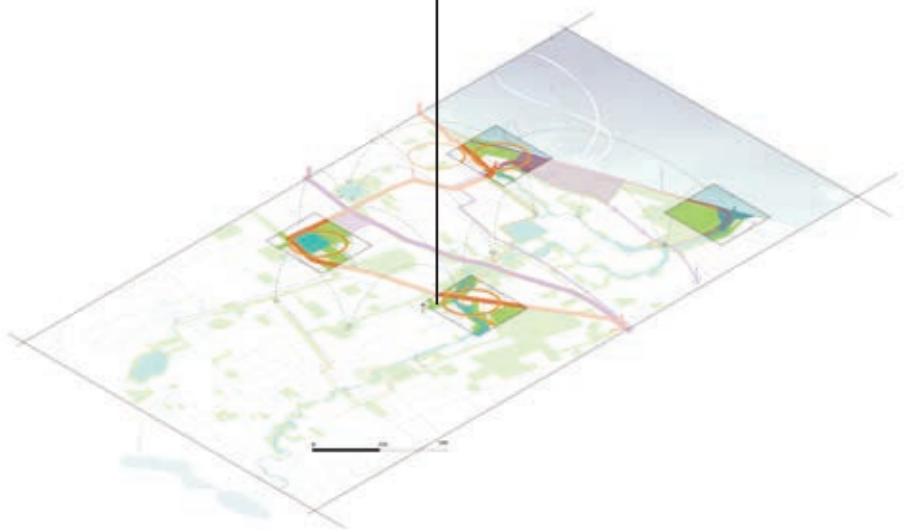
Strategic Zoom In - 02
Assi Ganga Confluence



Strategic Zoom In - 03
Sankat Mochan Ghat



Strategic Zoom In - 03
Sankat Mochan Ghat



Heritage Walk

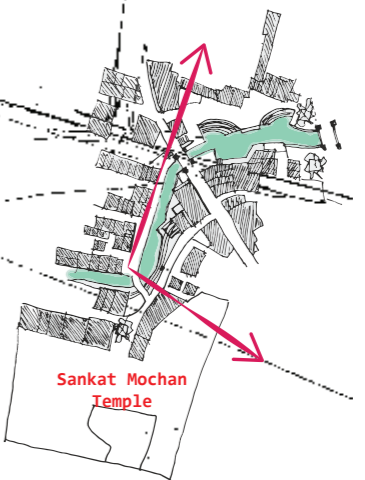


Sankat Mochan Ghat



Pedestrian Bridge

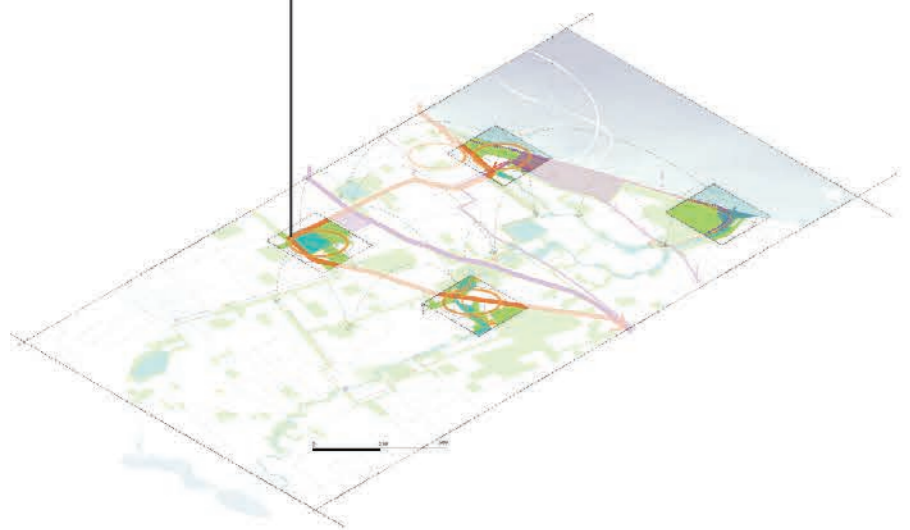
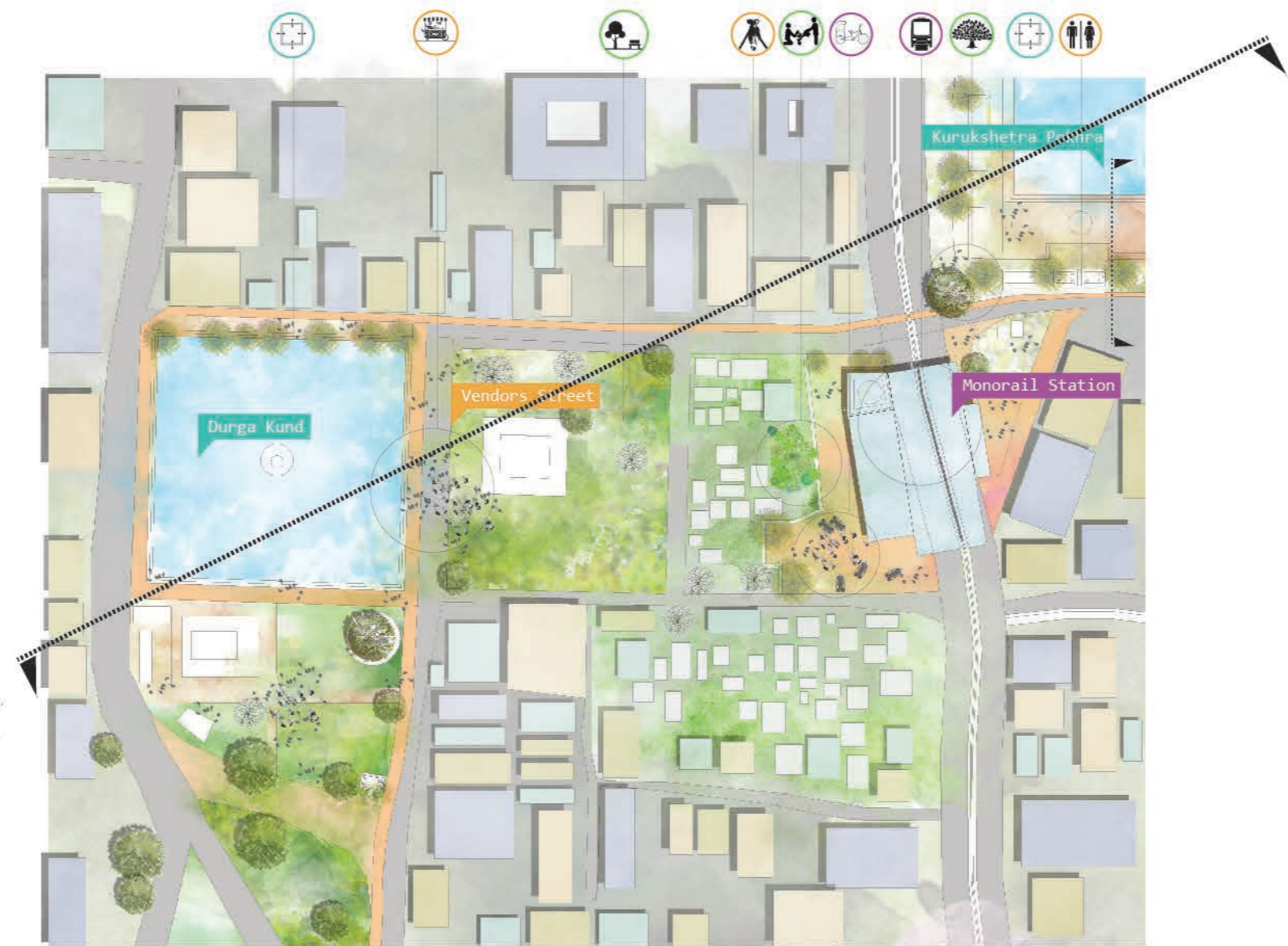
Temple street



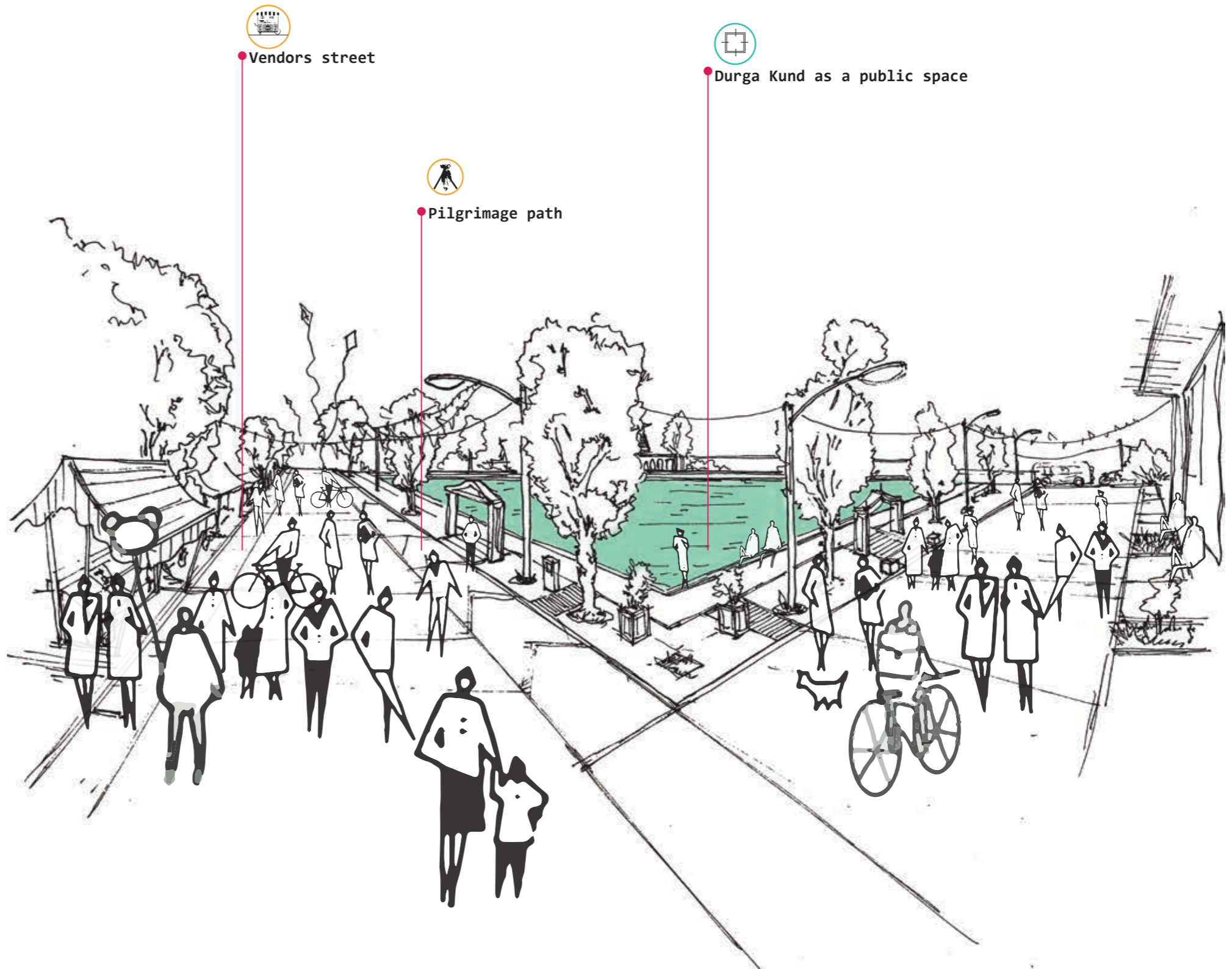
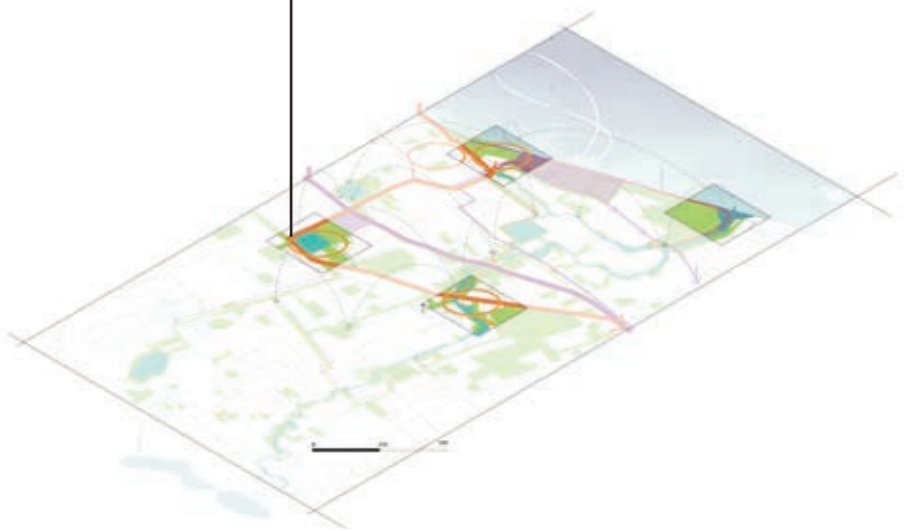
Sankat Mochan Temple



Strategic Zoom In - 04
Durga Kund Station




Strategic Zoom In - 04
Durga Kund Station

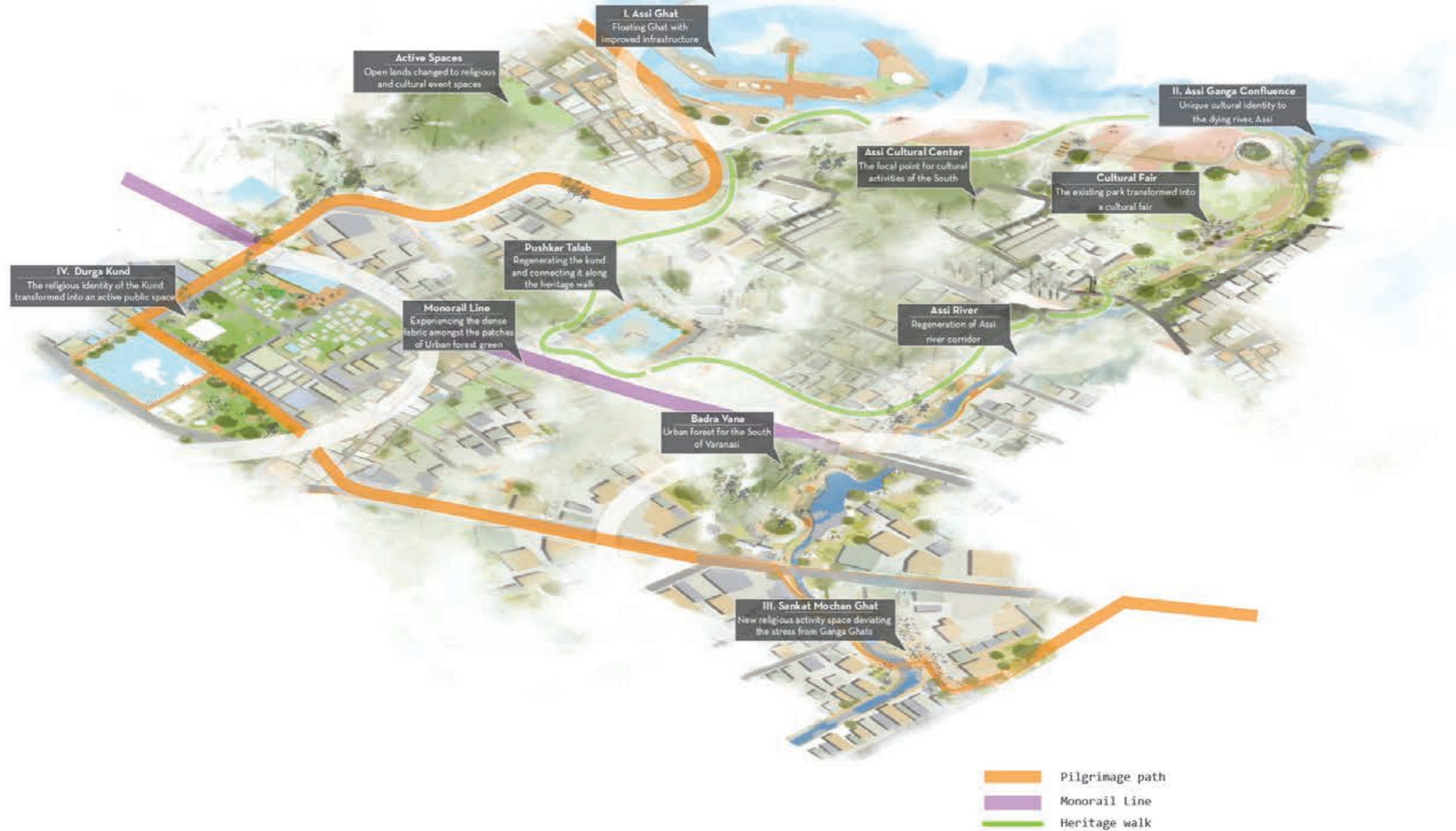


 Vendors street

 Pilgrimage path

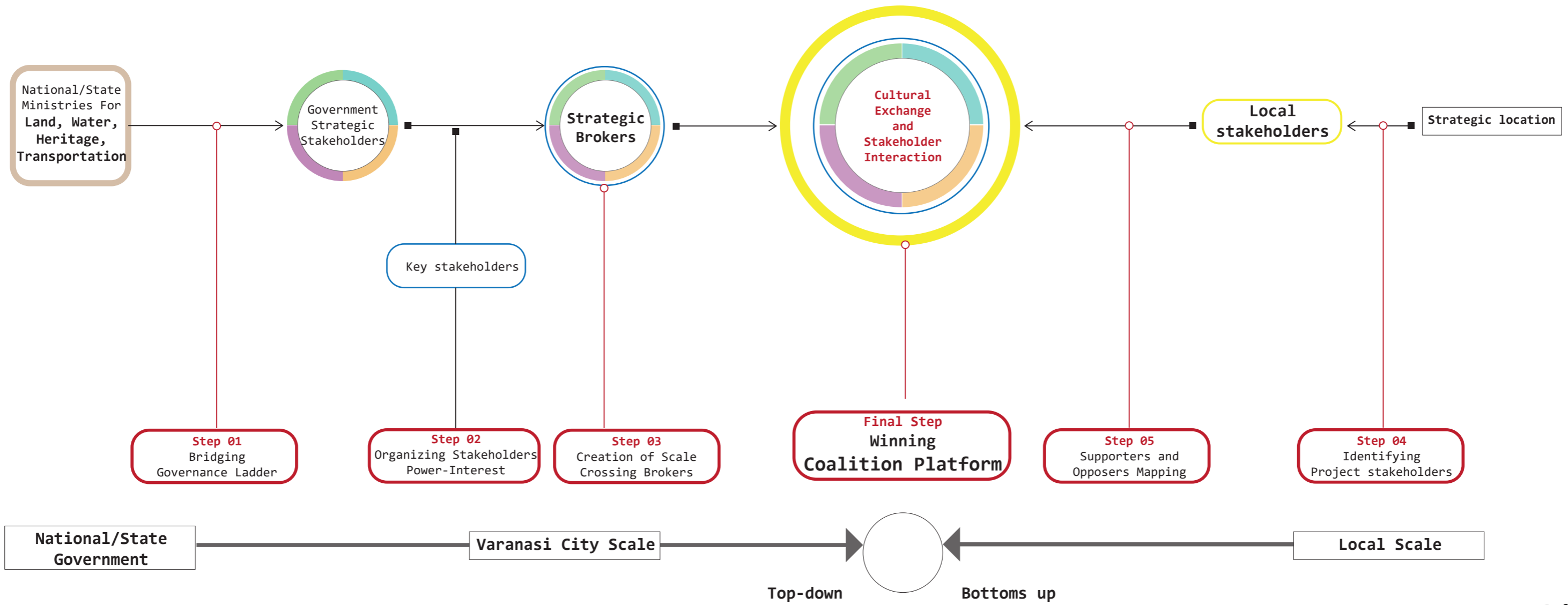
 Durga Kund as a public space

Overall Development



Strategic Framework





Reference:
 (Bryson, 2004)
 (Ernstson et al, 2010)





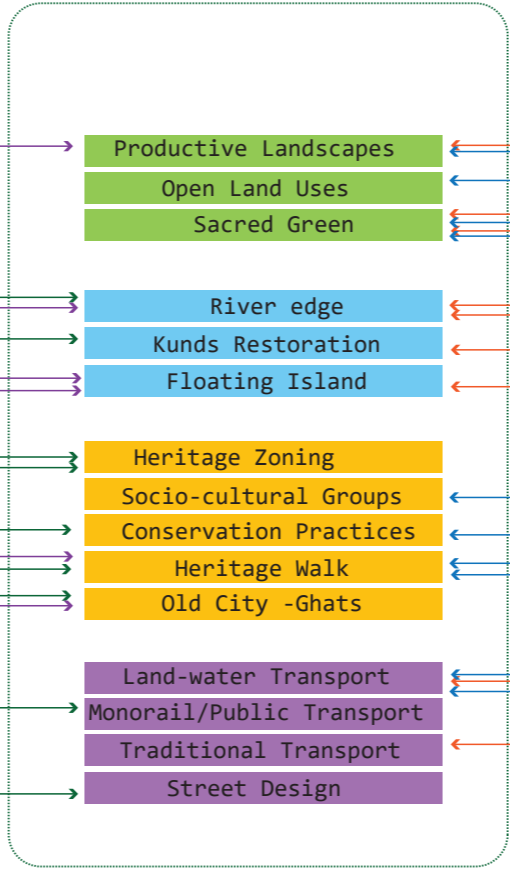
Varanasi Development Authority
 Varanasi Municipality
 Real Estate
 Land Owners
 Temple Organizations



National Highway Authority
 Public Works Department
 Infrasstructure developers
 Ferry Authority
 Public Transport Authority

○ ○ ○ ○ Government Stakeholders
 ● ● ● ● Non-Government Stakeholders

Strategic Projects



Irrigation Department
 Varanasi Jal Sansthan(Water Authority)
 Industries
 IIT BH University
 Pollution Control Baord
 Non Government Organizations

Sanskrit University
 INTACH
 Archeology Survey of India
 Toursit Agencies
 Hindu Religious Organizations
 Cultural Organizations
 Tourism Development Authority





Varanasi Development Authority

Varanasi Municipality

Real Estate

Land Owners

Temple Organizations

National Highway Authority

Public Works Department

Infrasructure developers

Ferry Authority

Public Transport Authority

Irrigation Department

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Hindu Religious Organizations

Cultural Organizations

Tourism Development Authority

Productive Landscapes

Open Land Uses

Sacred Green

River edge

Kunds Restoration

Floating Island

Heritage Zoning

Socio-cultural Groups

Conservation Practices

Heritage Walk

Old City -Ghats

Land-water Transport

Monorail/Public Transport

Traditional Transport

Street Design

Government Stakeholders

Non-Government Stakeholders

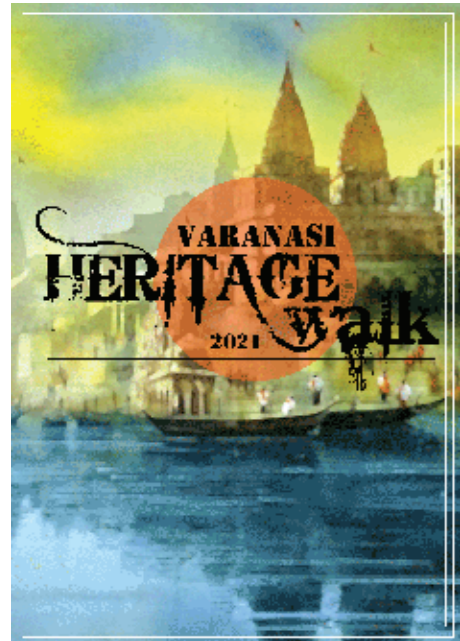


Strategic Framework

1 Strategic Design

2 Stakeholder Engagement

3 Events & Phasing



E1



E2



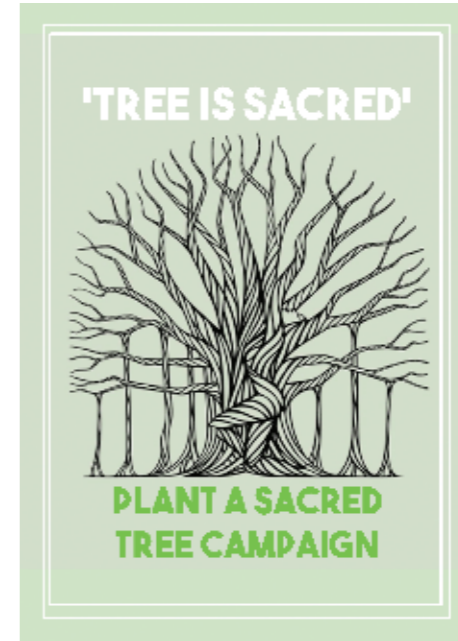
E3



E4



E5



E7



E8



Kumbh Mela

In every 3 years

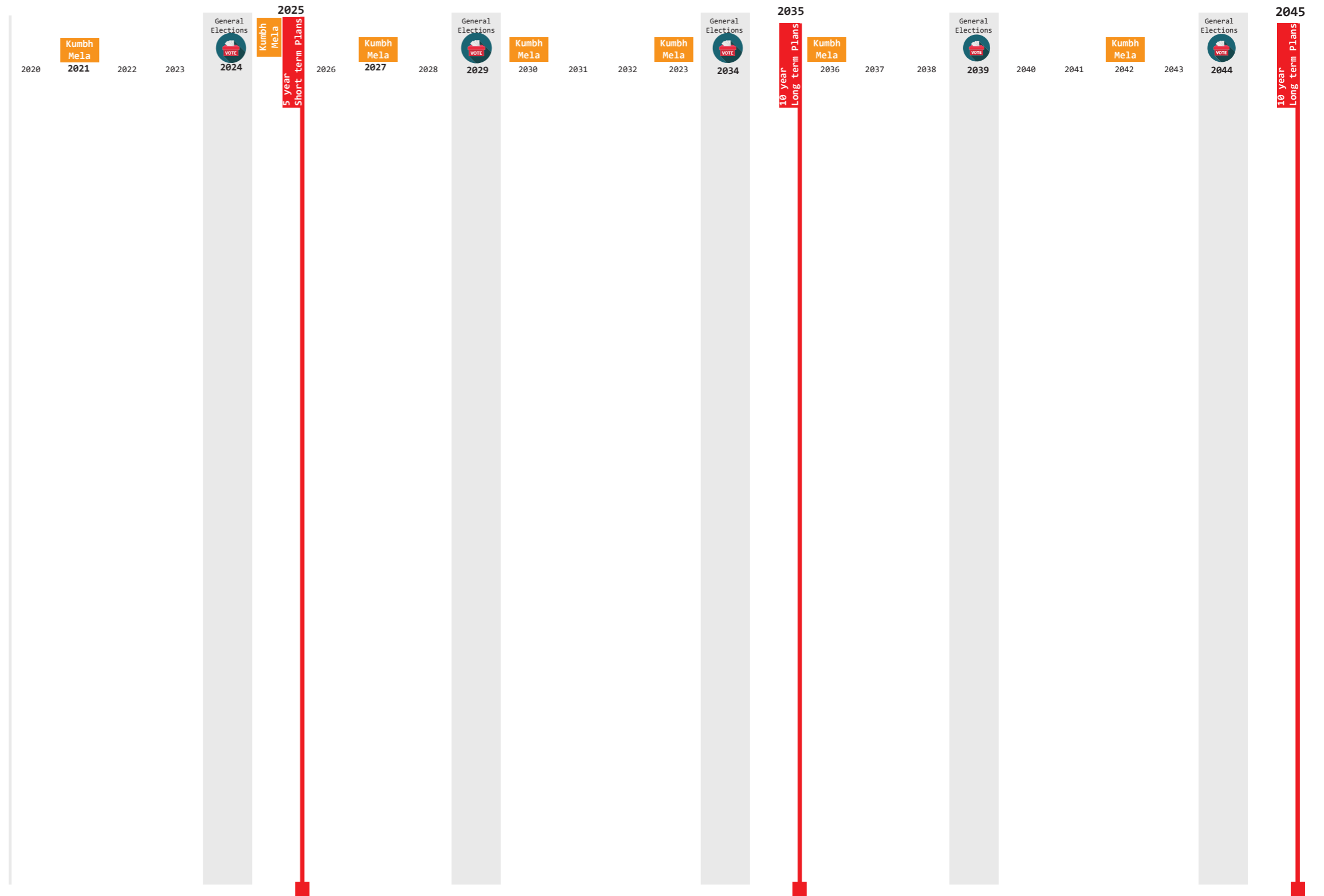


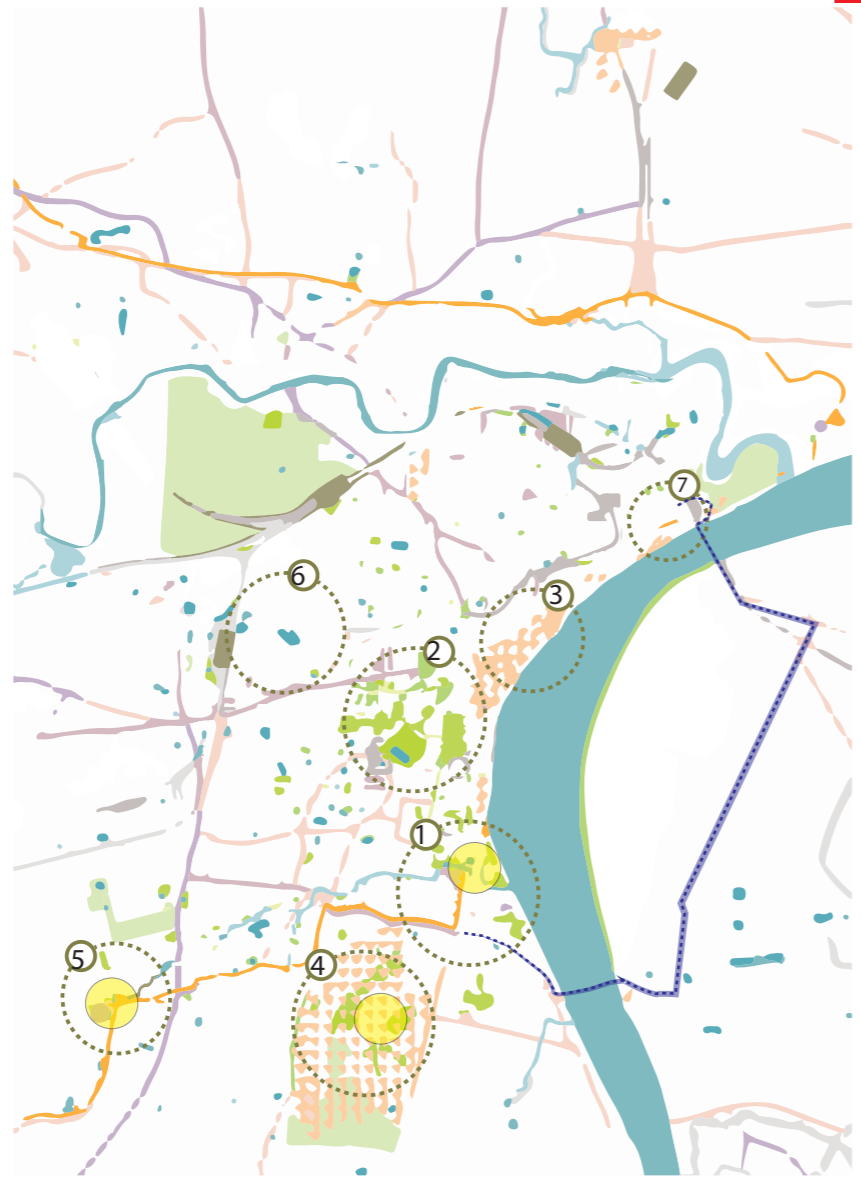
General Elections

In every 5 years



Source: Reuters/ Danish Siddiqui
browngirlmagazine.com



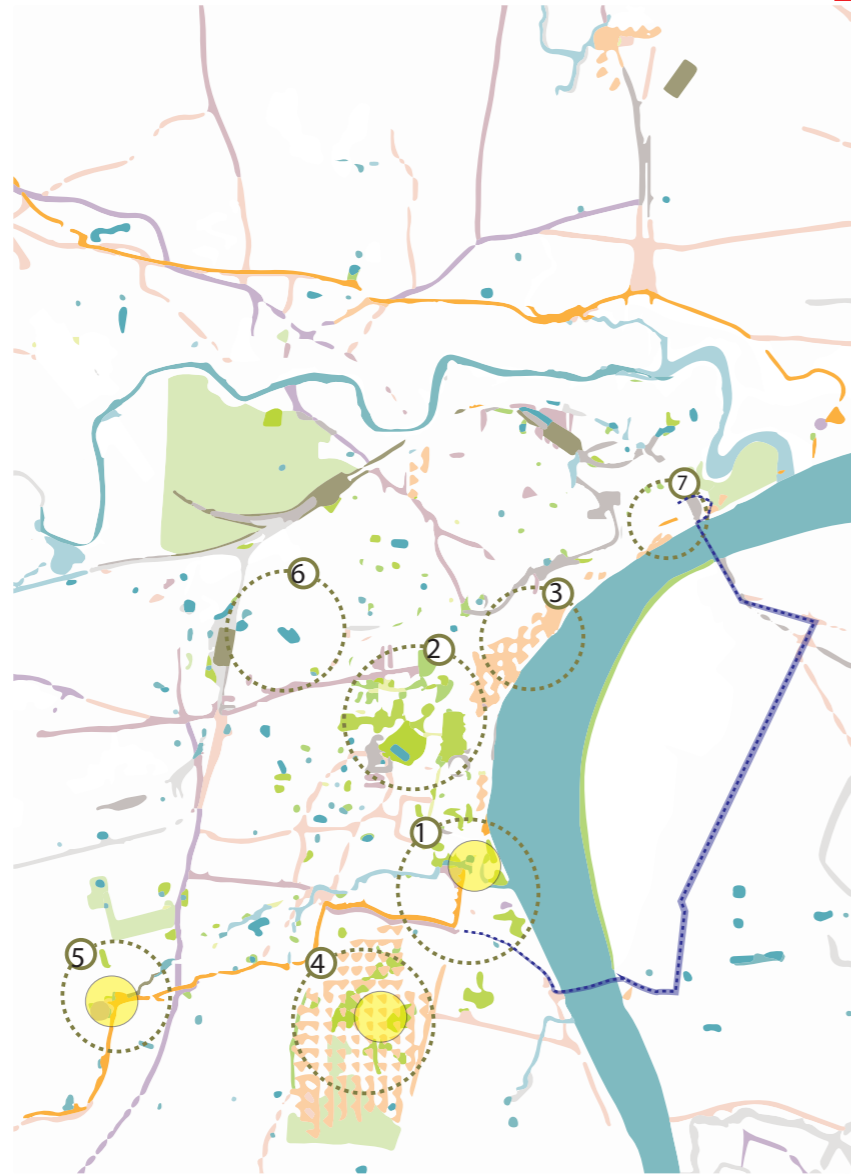


5 year Short term Plans

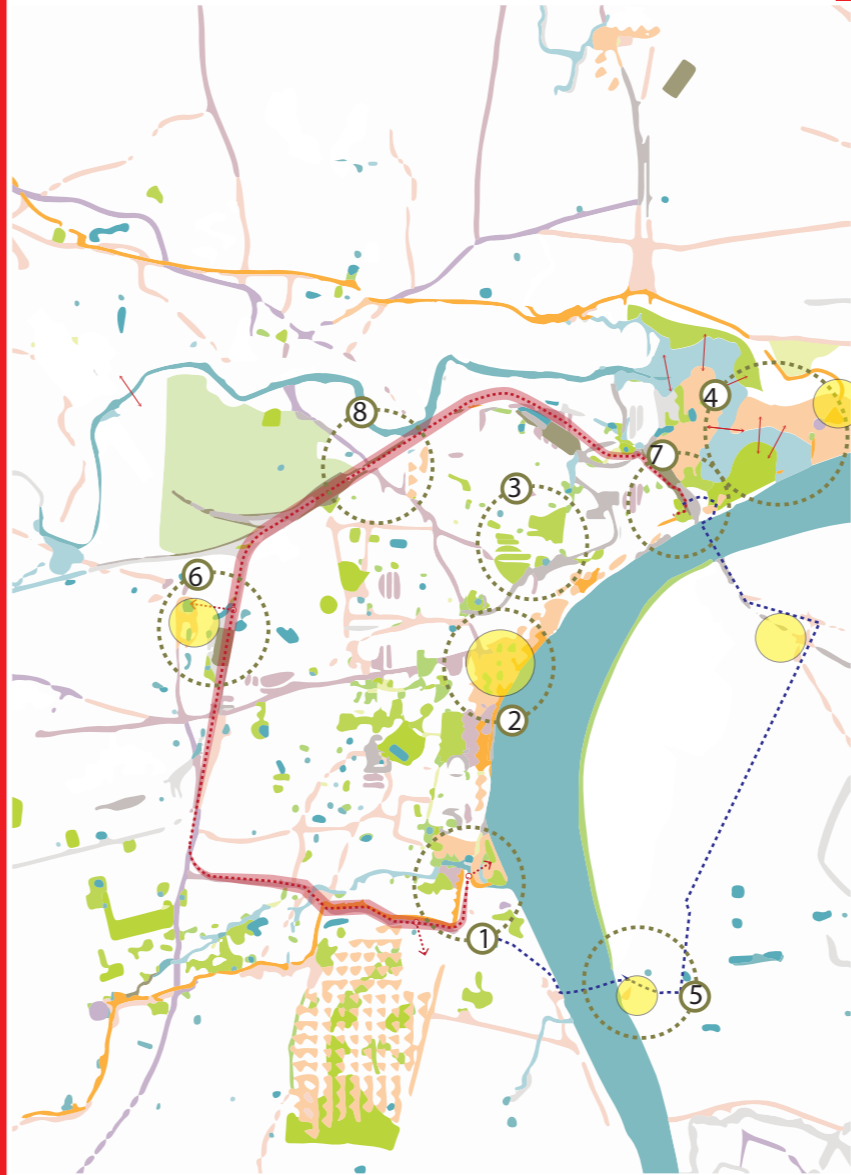


15 year Long term Plans

25 year Long term Plans



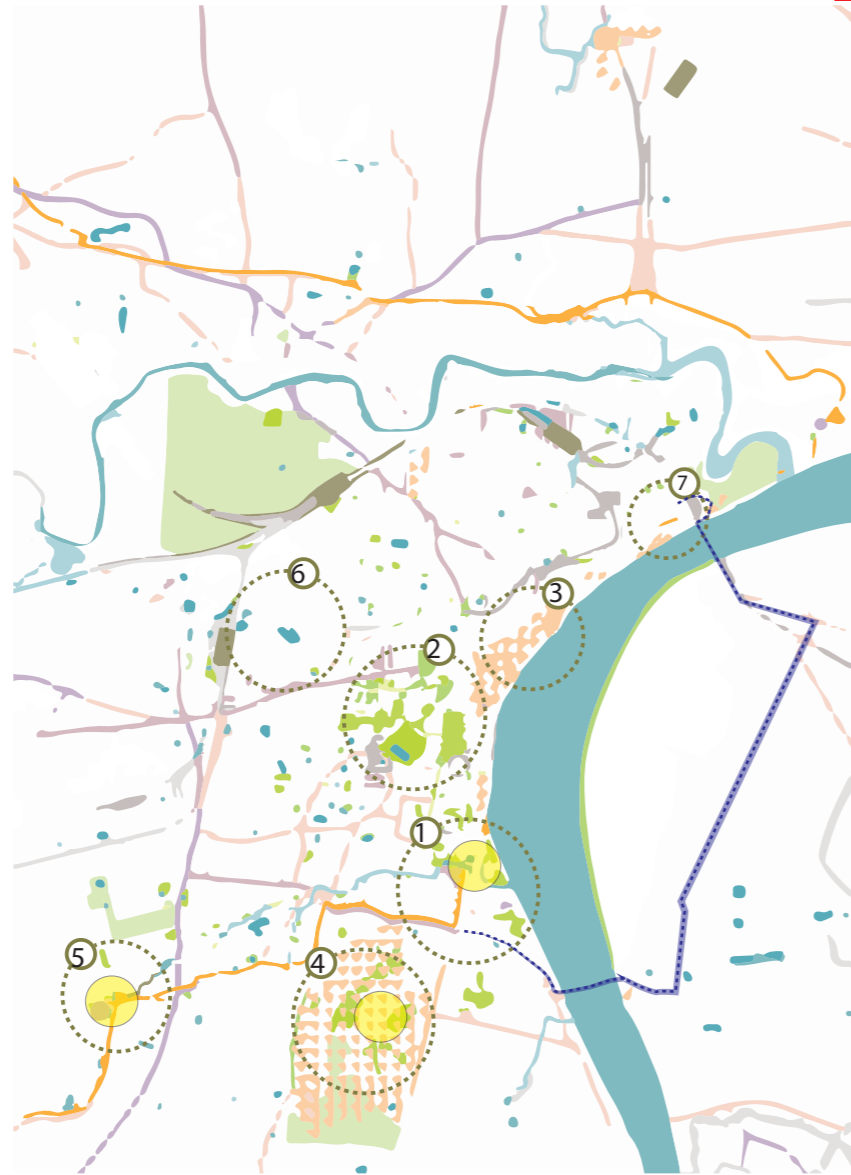
5 year Short term Plans



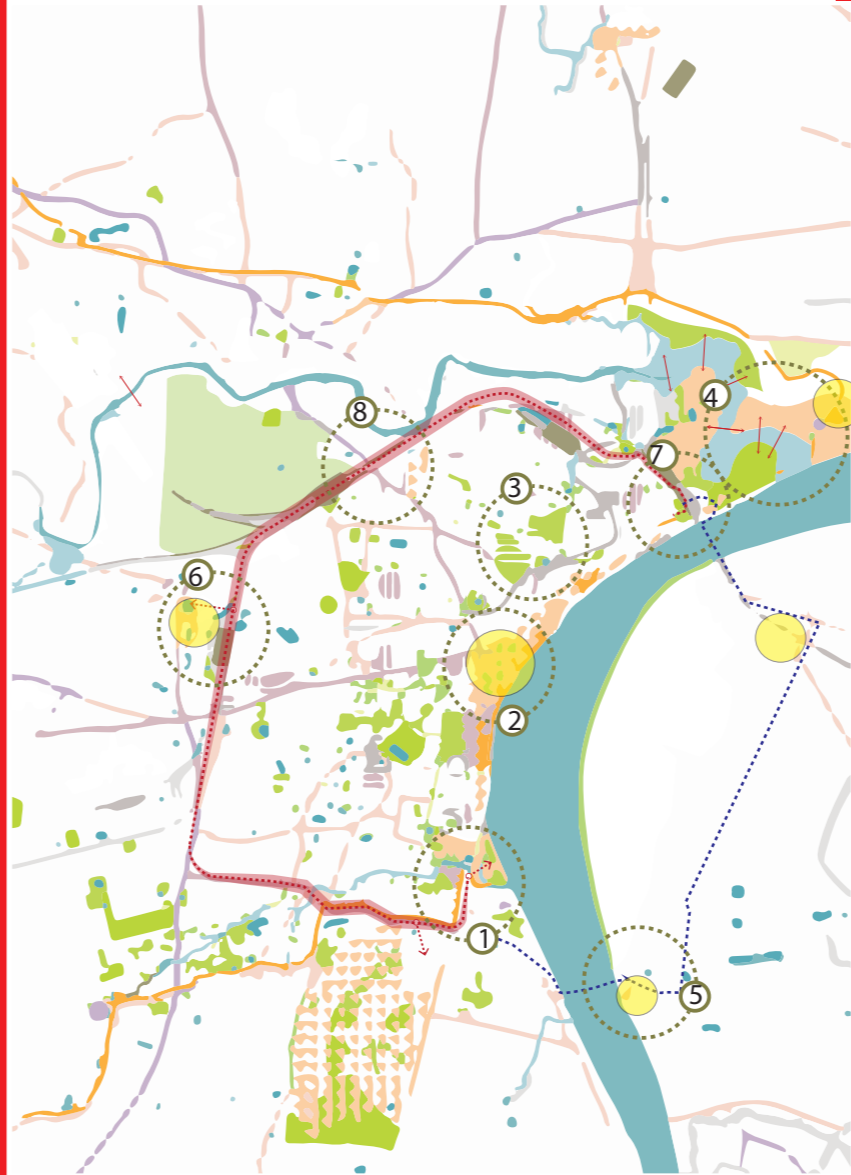
15 year Long term Plans



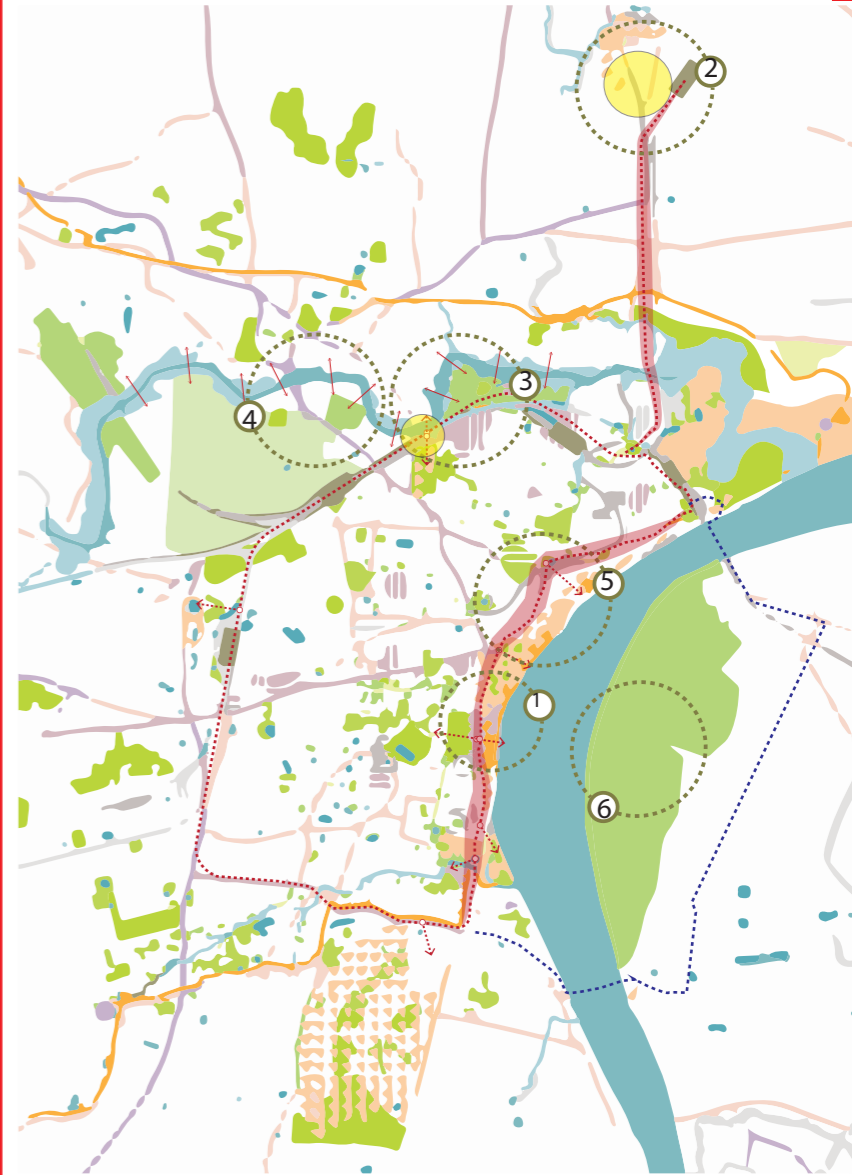
25 year Long term Plans



5 year Short term Plans



15 year Long term Plans






25 year Long term Plans







 Projects
 Project
 Interconnectivity

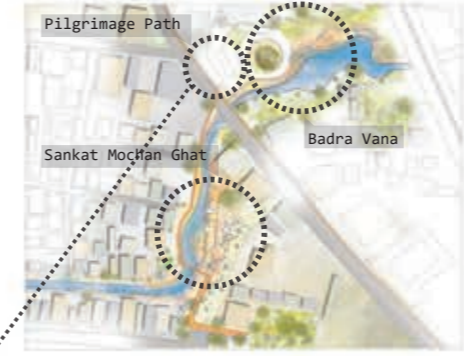
ASSI GHAT



ASSI GANGA CONFLUENCE



SANKAT MOCHAN GHAT






DURGA KUND STATION



○ Projects
○ Project
..... Interconnectivity



 Projects
 Project
 Interconnectivity

7

CONCLUSIONS

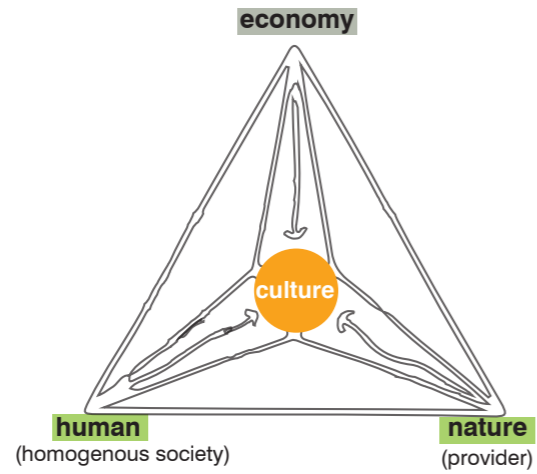
1. Transferability of Cultural Approach

1



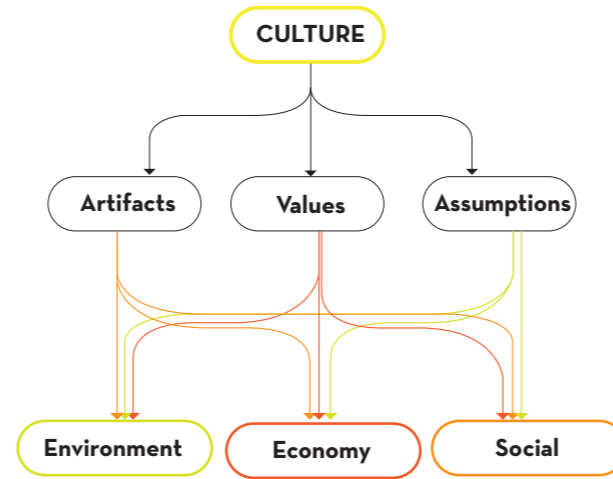
Defining the sacred
GEOGRAPHY

2



Human-Nature
Relations

3



Sustainable
cultural interactions

4



Culture
and its actors

5



Reimagining
the landscape

1

Defining the sacred
GEOGRAPHY

2

Human Nature
Relations

3

Sustainable
cultural interactions

4

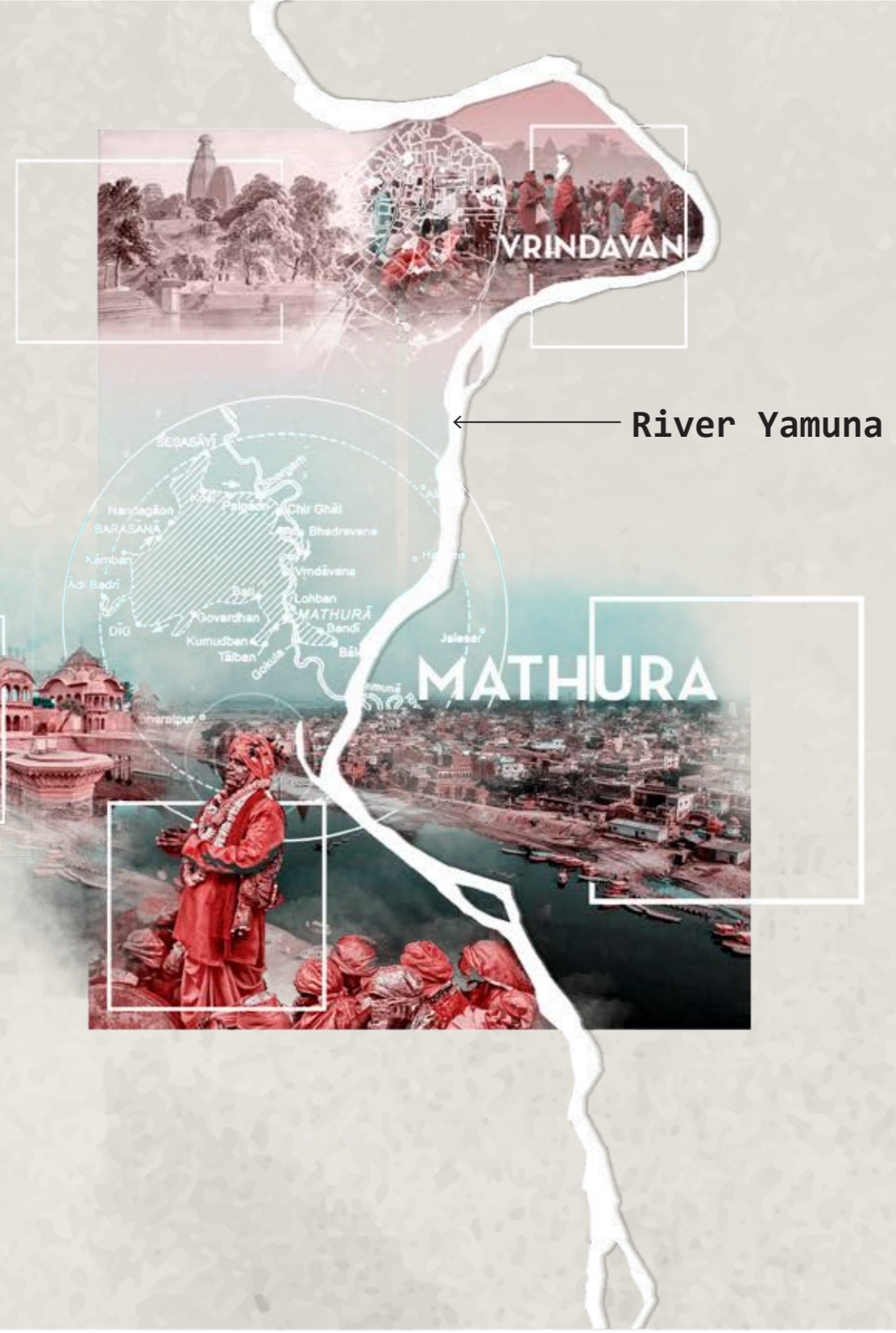
Culture
and its actors

5

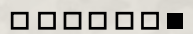
Reimagining
the landscape



Mathura-Vrindavan, India
Braj Sacredscape, Hindu Religion



River Yamuna



1

Defining the sacred
GEOGRAPHY

2

Human Nature
Relations

3

Sustainable
cultural interactions

4

Culture
and its actors

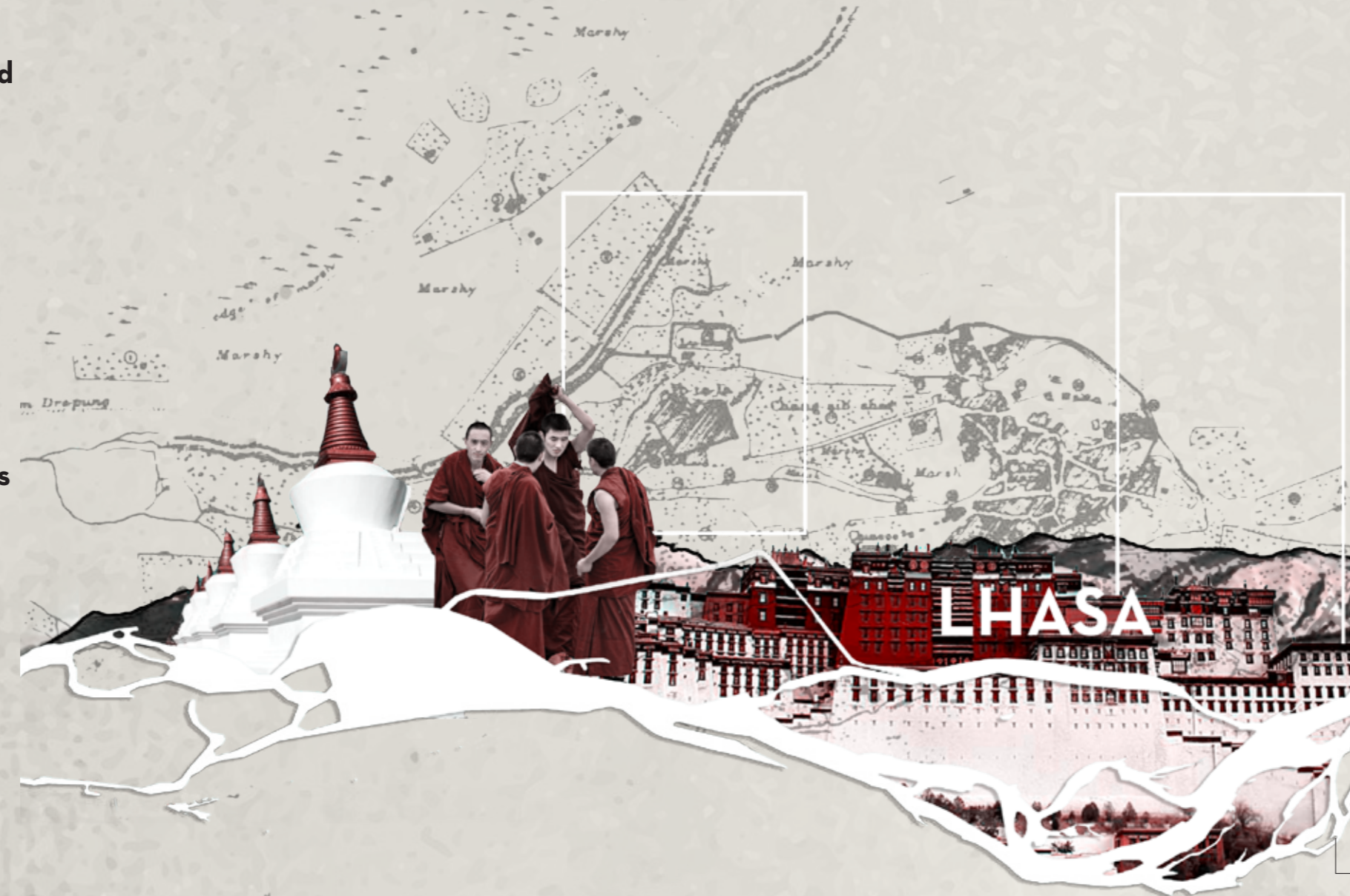
5

Reimagining
the landscape



Ayodhya-Faizabad, India
Hindu/Islam Religion

River Sarayu



1
Defining the sacred
GEOGRAPHY

2
Human Nature
Relations

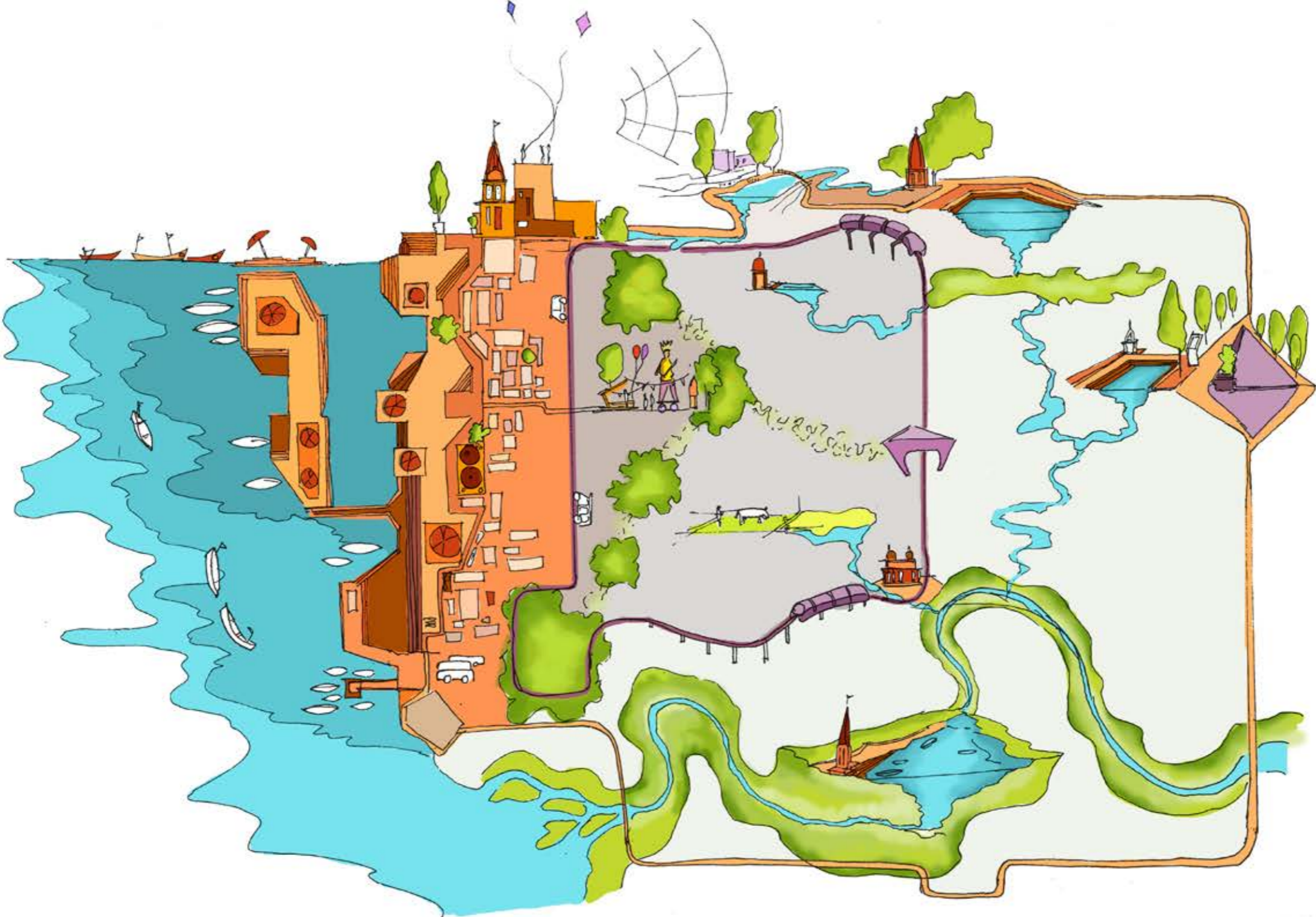
3
Sustainable
cultural interactions

4
Culture
and its actors

5
Reimagining
the landscape

River Kyichu

2. Sacredscapes to Cultural Landscapes



Sicily, Italy



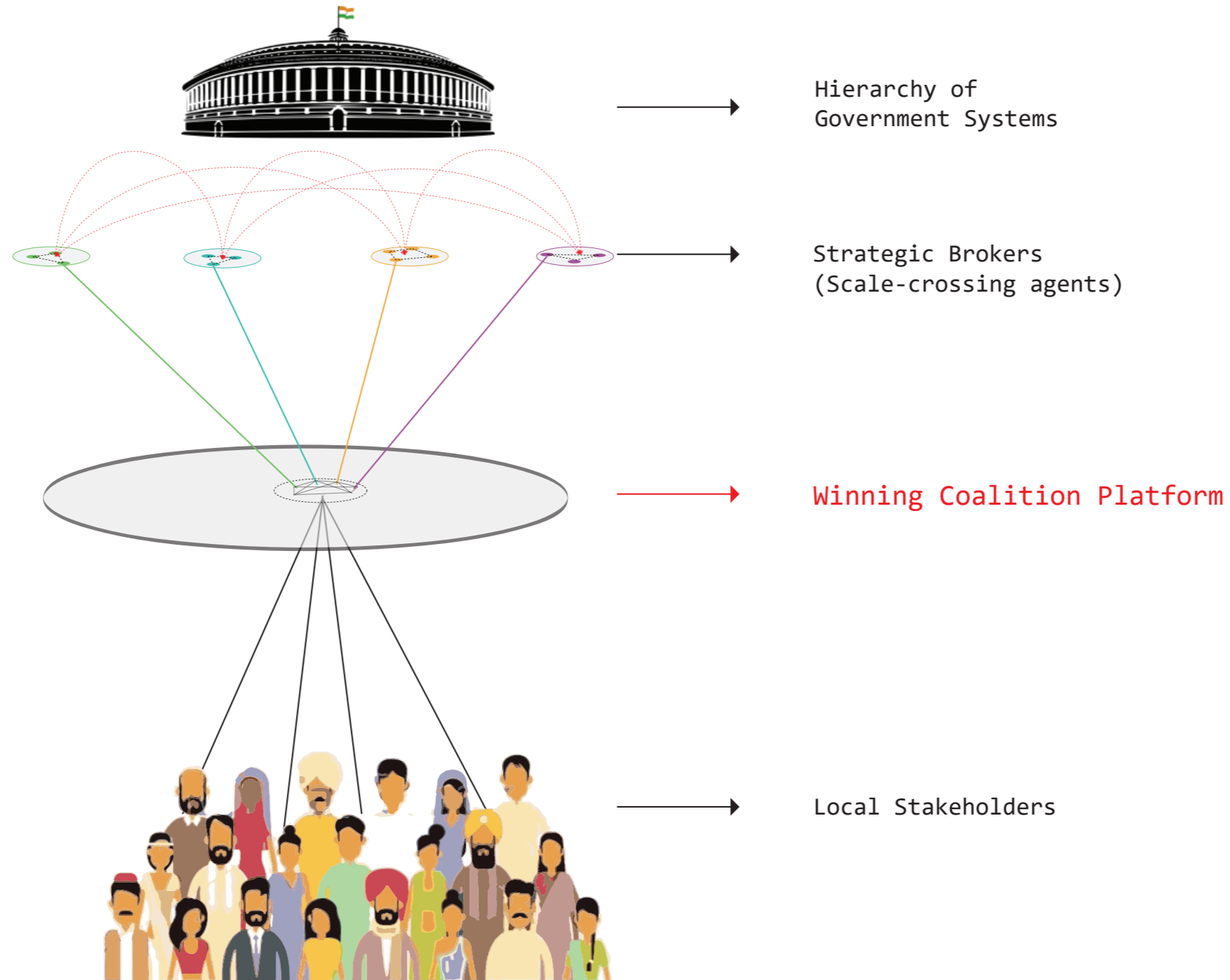
Source: studio formagramma

Taichung, Taiwan

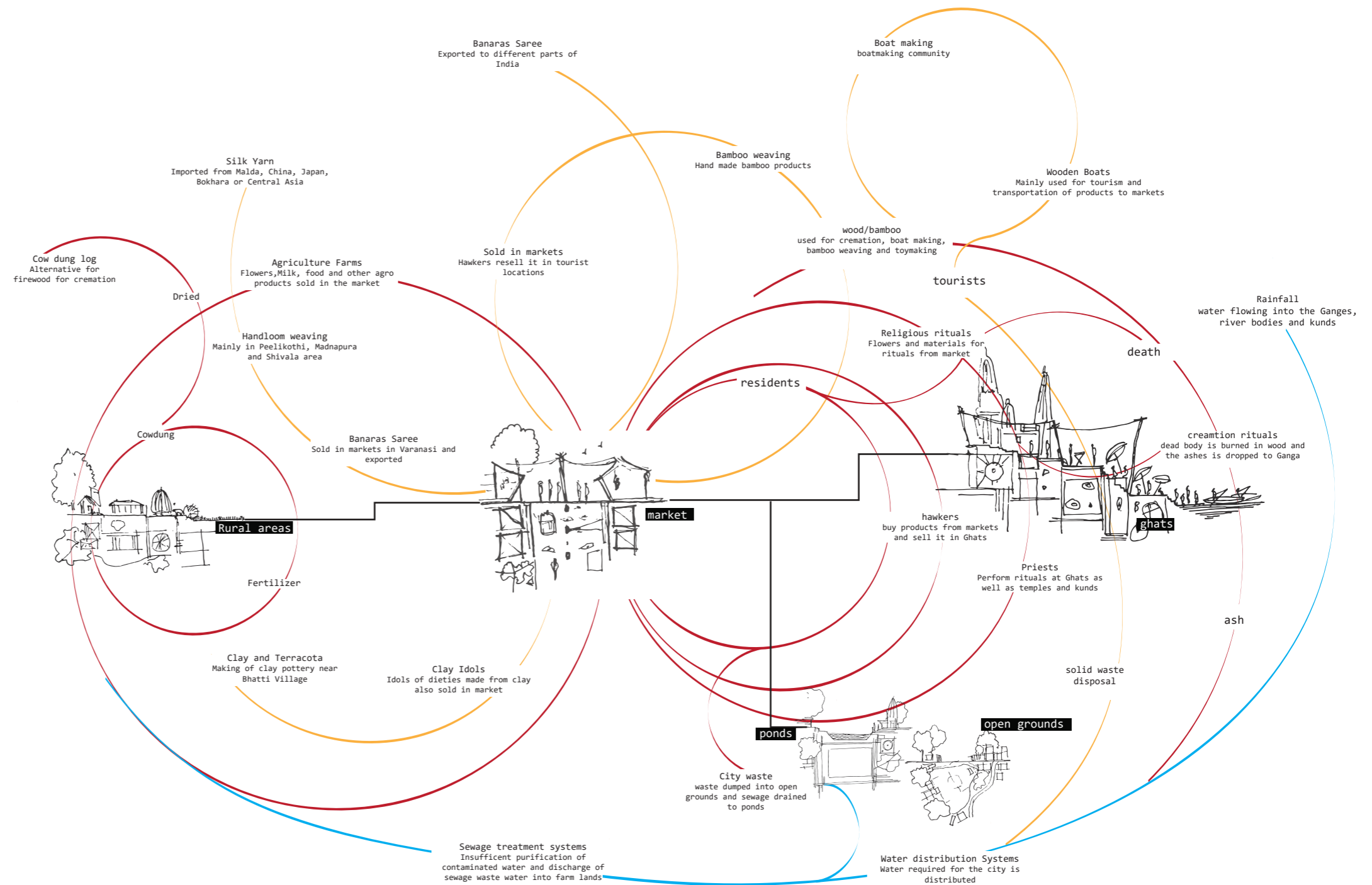


Source: behance.net / yu lin chen

3. Middle ground to Planning process in India (Further Research)



4. Urban-Rural Sustainable Practices (Further Research)



Ethical Consideration

Respect for culture values and religious beliefs





Knowing what and how Varanasi is.

A photograph capturing a religious scene in a river. In the center, a man with a long beard and a large, dark turban stands waist-deep in the water, his hands held together in a prayerful gesture. To his left, a group of people, including men and women, are seated on the riverbank, some with their hands clasped in prayer. In the background, a large, ornate stone structure, possibly a temple or a well, is visible. To the right, a boat is docked at the riverbank. The overall atmosphere is one of devotion and community.

Thank you for Listening

APPENDIX

Research Questions

How to formulate a **strategic spatial framework** in enhancing the **socio-ecological synergies** to promote a culturally sustainable Varanasi?

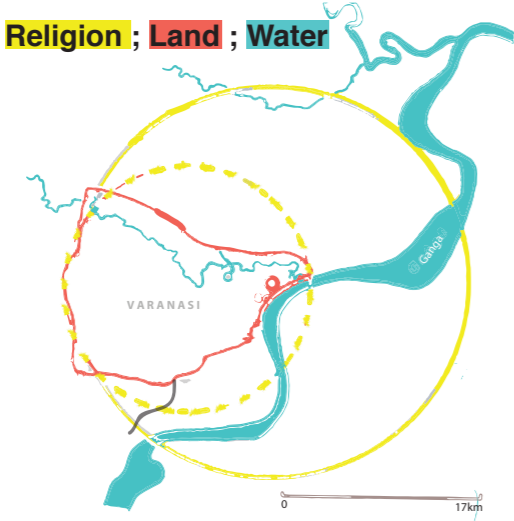
key concepts

methods and approach

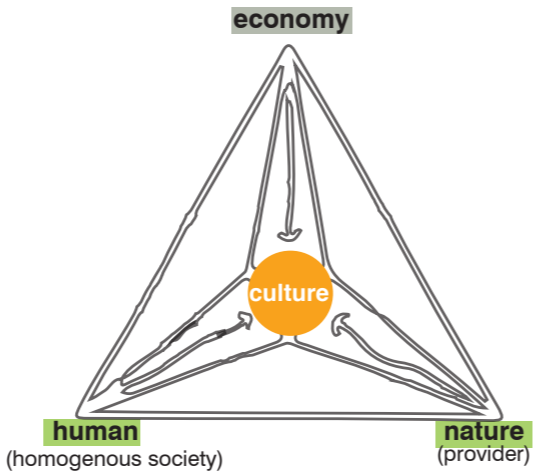
<p>1. What are the socio-ecological systems of a scared city? What are the relationships between built environment and socio-ecological systems?</p>	<p>socio-ecological systems water urbanism</p>	<p>socio-spatial analysis GIS analysis fieldwork</p>
<p>2. What are the relationships between religion and socio-ecological systems through space and time? What are the spatial religious considerations to be taken while making the strategic framework?</p>	<p>mythology evolution & history cultural conservation</p>	<p>socio-spatial analysis GIS Mapping</p>
<p>3. What are the socio-spatial implications of fluctuating population on the city of Varanasi? What are the strategies to reduce the impact of these population on the city?</p>	<p>crowd management temporary vs permanent</p>	<p>socio-spatial analysis fieldwork (observations)</p>
<p>4. What are the policies and actions undertaken by Government in minimizing the adverse impact on social and physical systems of the city?</p>	<p>role of government multilevel perspective</p>	<p>institutional analysis literature review stakeholder analysis</p>
<p>5. How can cultural sustainability be used as a resource for making Varanasi an inclusive and just city? How can the strategic framework involve religious and cultural actors for enhancing the socio-ecological synergies ?</p>	<p>social inclusion spatial design</p>	<p>socio-spatial analysis GIS Mapping fieldwork (observations) fieldwork(questionnaire)</p>
<p>6. How can culture as an approach be used for formulating a strategic spatial framework ? How can the planning process involve the political, religious, economic and social stakeholders achieving a culturally sustainable varanasi?</p>	<p>cultural sustainability stakeholder participation</p>	<p>literature review socio-spatial analysis GIS Mapping</p>

Methodology

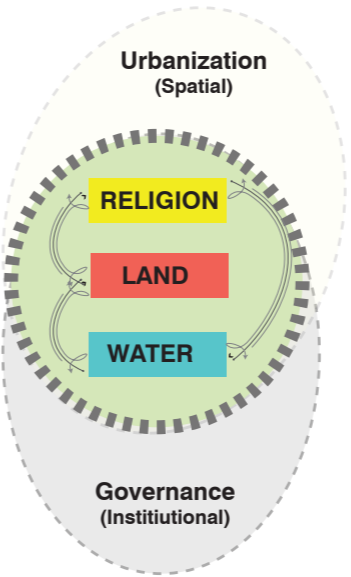
Varanasi as a Sacredscape



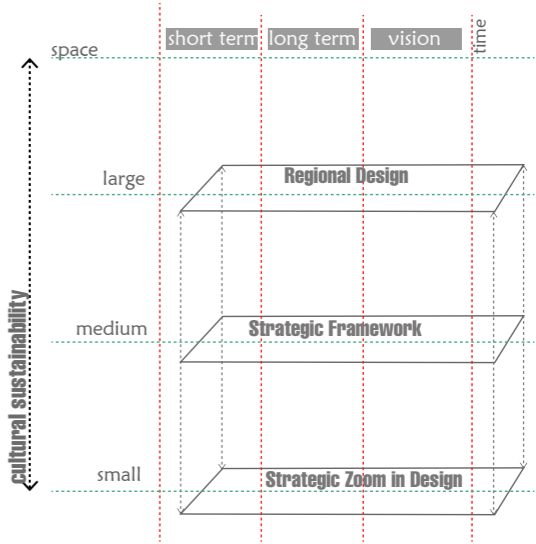
Varanasi A cultural Resource



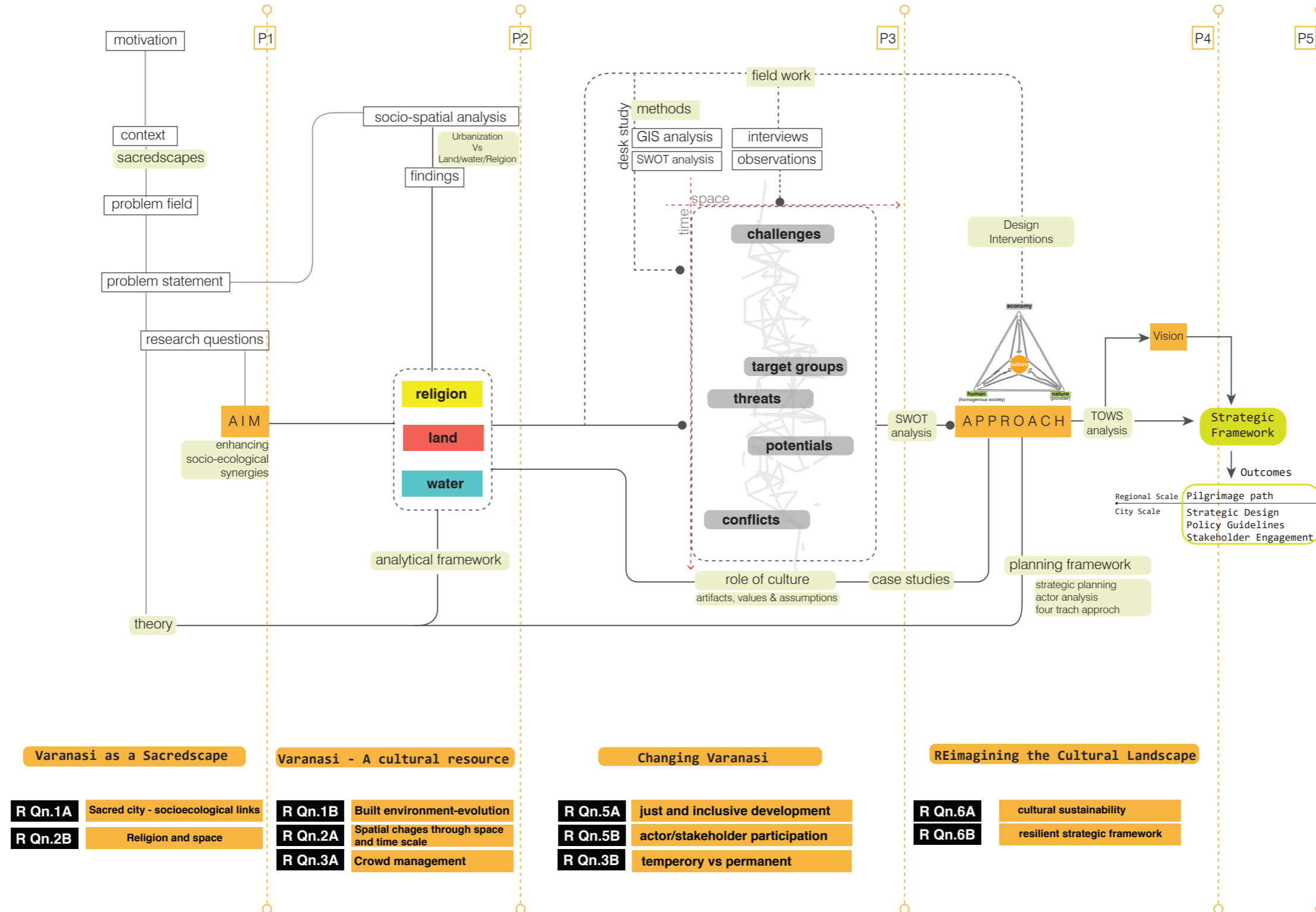
Changing Varanasi



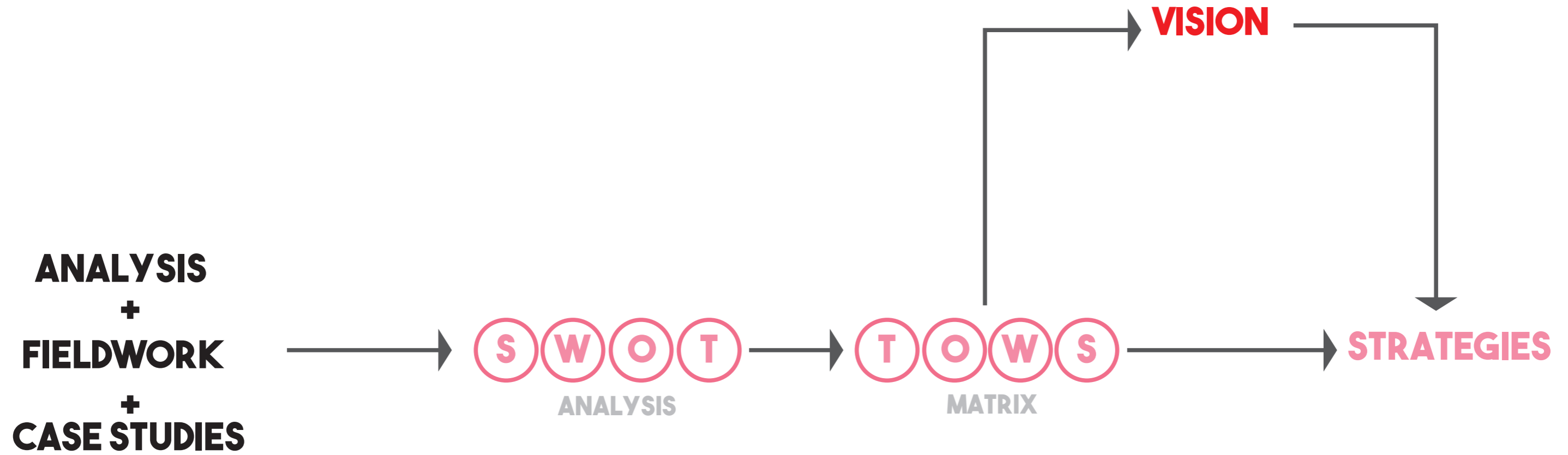
'RE'imagining the Cultural Landscape



Methodology



Framework



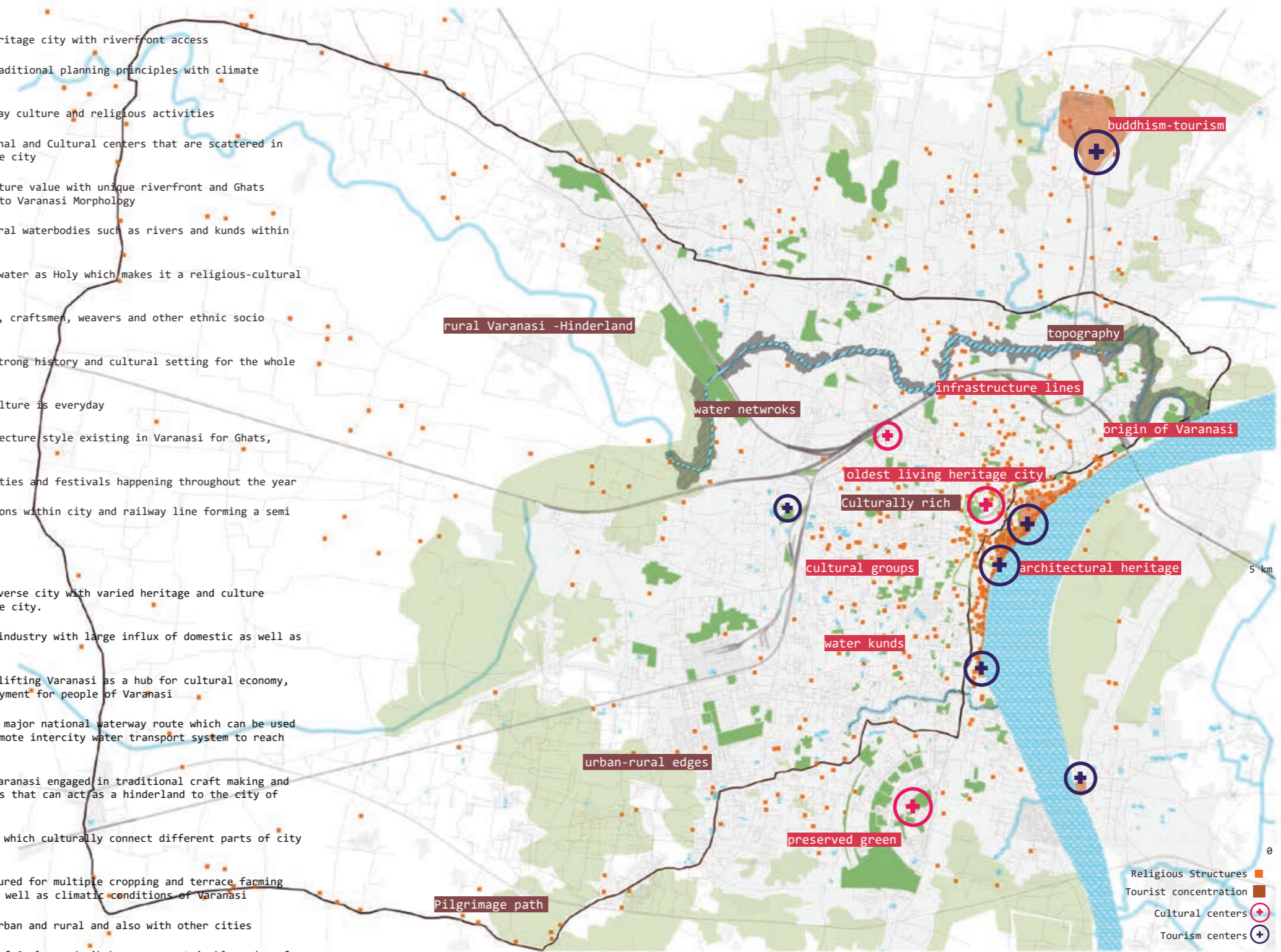
TOWS to Strategies

Strengths

- S1. Oldest Living Heritage city with riverfront access
- S2. Old city with traditional planning principles with climate adaptive architecture
- S3. City with everyday culture and religious activities
- S4. Rich in Educational and Cultural centers that are scattered in different parts of the city
- S5. Rich in Architecture value with unique riverfront and Ghats creating an identity to Varanasi Morphology
- S6. Presence of natural waterbodies such as rivers and kunds within the city
- S7. The identity of water as Holy which makes it a religious-cultural asset
- S8. Rich in artisans, craftsmen, weavers and other ethnic socio cultural groups
- S9. Existence of a strong history and cultural setting for the whole city of Varanasi
- S10. A city where culture is everyday
- S11. Distinct architecture style existing in Varanasi for Ghats, mohallas, temples etc
- S12. Cycle of activities and festivals happening throughout the year
- S13. 3 railway stations within city and railway line forming a semi outer ring connection

Oppurtunities

- O1. Varanasi is a diverse city with varied heritage and culture distributed around the city.
- O2. Growing tourism industry with large influx of domestic as well as foreign
- O3. Potential for uplifting Varanasi as a hub for cultural economy, hence providing employment for people of Varanasi
- O4. River Ganga is a major national waterway route which can be used as a potential to promote intercity water transport system to reach Varanasi
- O5. Rural areas of Varanasi engaged in traditional craft making and agricultural practices that can act as a hinderland to the city of Varanasi
- O6. Pilgrimage paths which culturally connect different parts of city to one common purpose
- O7. Agriculture favoured for multiple cropping and terrace farming due to the terrain as well as climatic conditions of Varanasi
- O8. Water connects urban and rural and also with other cities
- O9. High percentage of Cycles and rikshaws are sustainable modes of transport



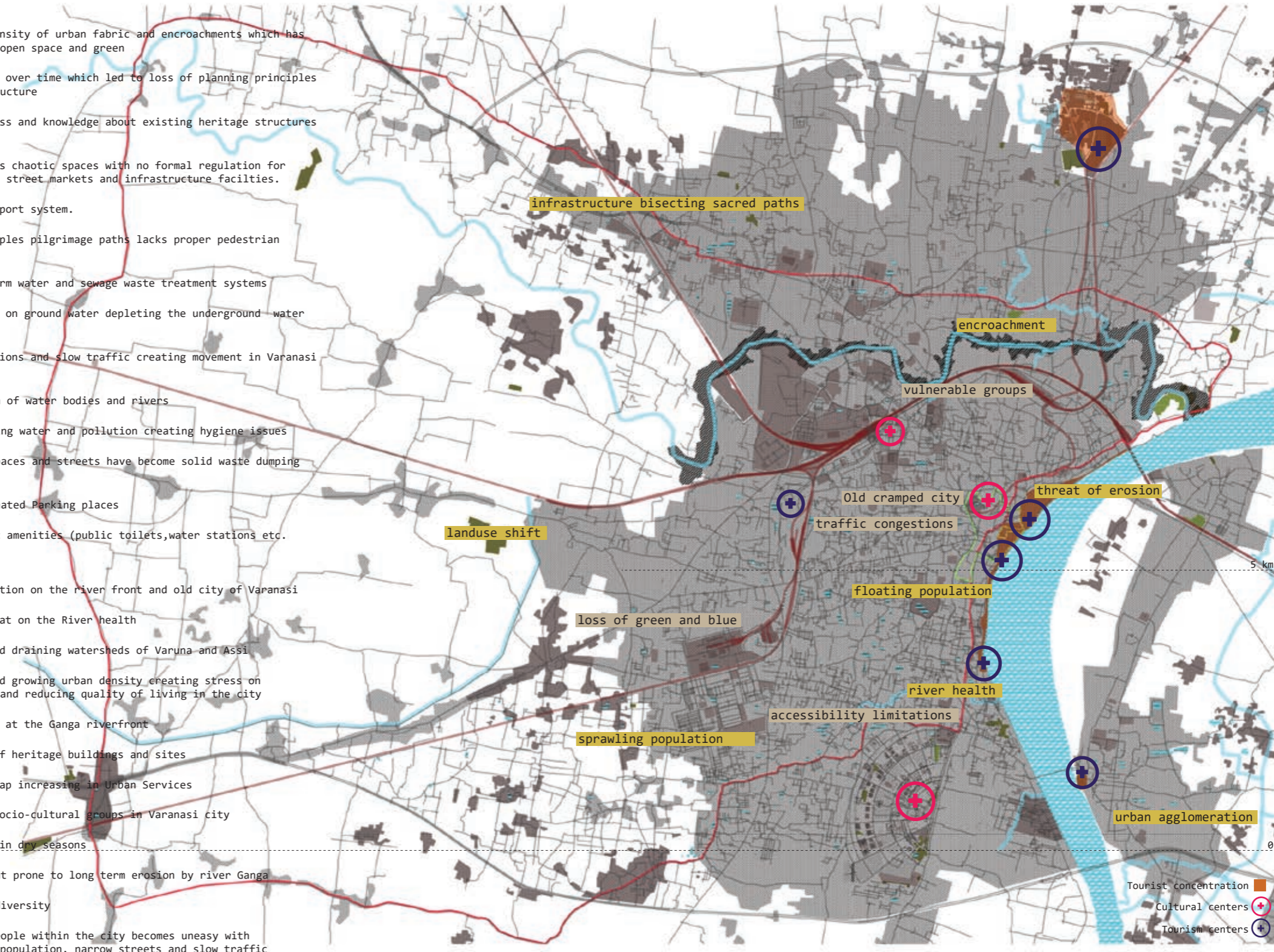
TOWS to Strategies

Weakness

- W1. Growing high density of urban fabric and encroachments which has resulted in loss of open space and green
- W2. Transformations over time which led to loss of planning principles and weekend infrastructure
- W3. Lack of awareness and knowledge about existing heritage structures or cultural assets
- W4. Streets exist as chaotic spaces with no formal regulation for parking, pedestrian, street markets and infrastructure facilities.
- W5. No public transport system.
- W6. City with multiples pilgrimage paths lacks proper pedestrian friendly streets
- W7. Inefficient storm water and sewage waste treatment systems
- W8. High dependency on ground water depleting the underground water table
- W9. Traffic congestions and slow traffic creating movement in Varanasi extremely difficult
- W10. Poor condition of water bodies and rivers
- W11. Lack of drinking water and pollution creating hygiene issues
- W12. Public open spaces and streets have become solid waste dumping sites
- W13. Lack of designated Parking places
- W14. Lack of Public amenities (public toilets, water stations etc.)

Threats

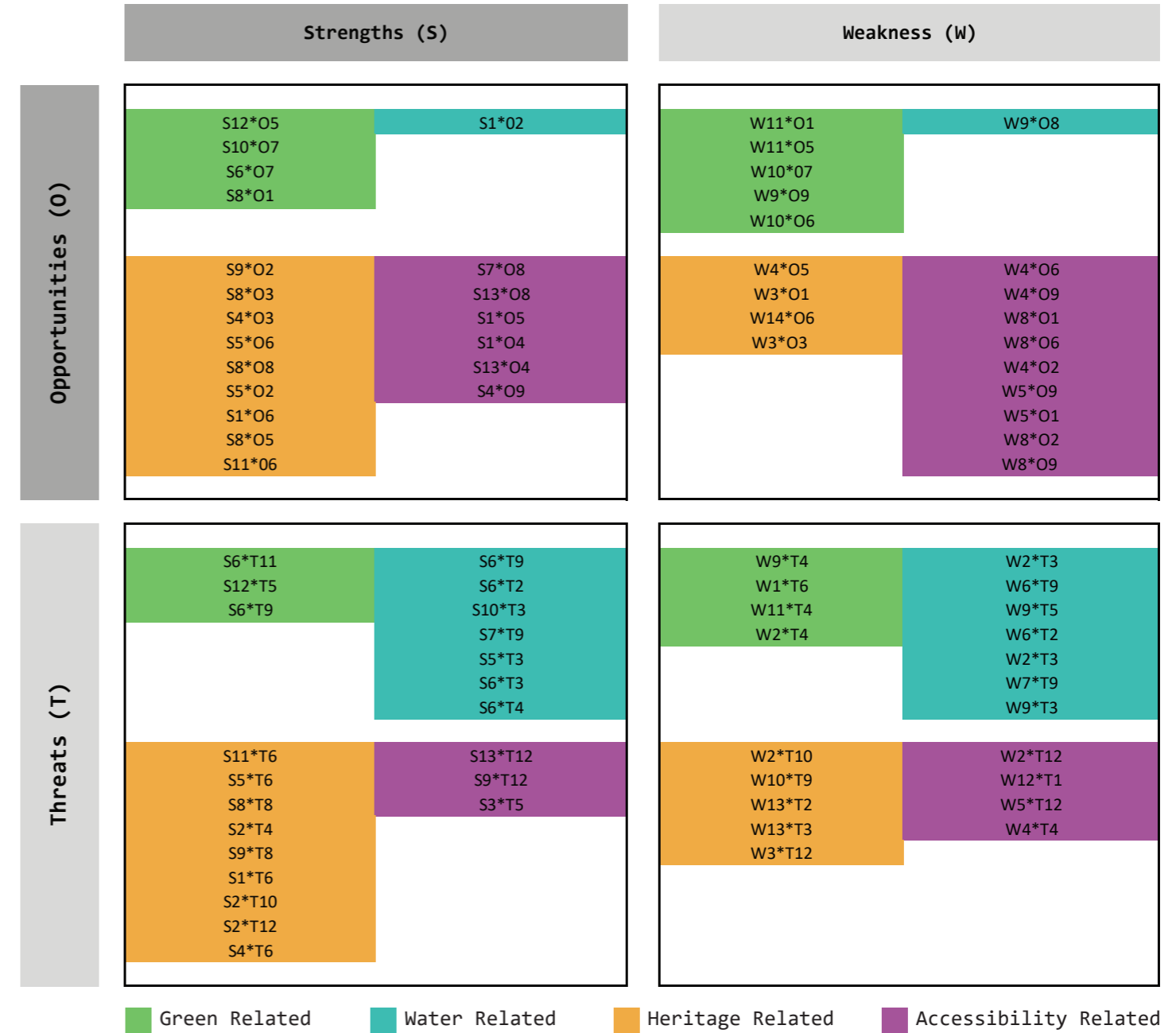
- T1. Floating population on the river front and old city of Varanasi
- T2. Increasing threat on the River health
- T3. Encroachment and draining watersheds of Varuna and Assi
- T4. Urban sprawl and growing urban density creating stress on remaining open land and reducing quality of living in the city
- T5. Activity stress at the Ganga riverfront
- T6. Deterioration of heritage buildings and sites
- T7. Demand-Supply gap increasing in Urban Services
- T8. Relocation of socio-cultural groups in Varanasi city
- T9. Water Scarcity in dry seasons
- T10. City riverfront prone to long term erosion by river Ganga
- T11. Threat to Biodiversity
- T12. Movement of people within the city becomes uneasy with increasing floating population, narrow streets and slow traffic



Tourist concentration ■
 Cultural centers ⊕
 Tourism centers ⊕

TOWS to Strategies

	External Opportunities (O)	External Threats (T)
Internal Strengths (S)	SO <i>"Maxi-Maxi" Strategy</i> Strategies that use strengths to maximize opportunities .	ST <i>"Maxi-Mini" Strategy</i> Strategies that use strengths to minimize threats .
Internal Weaknesses (W)	WO <i>"Mini-Maxi" Strategy</i> Strategies that minimize weaknesses by taking advantage of opportunities .	WT <i>"Mini-Mini" Strategy</i> Strategies that minimize weaknesses and avoid threats .

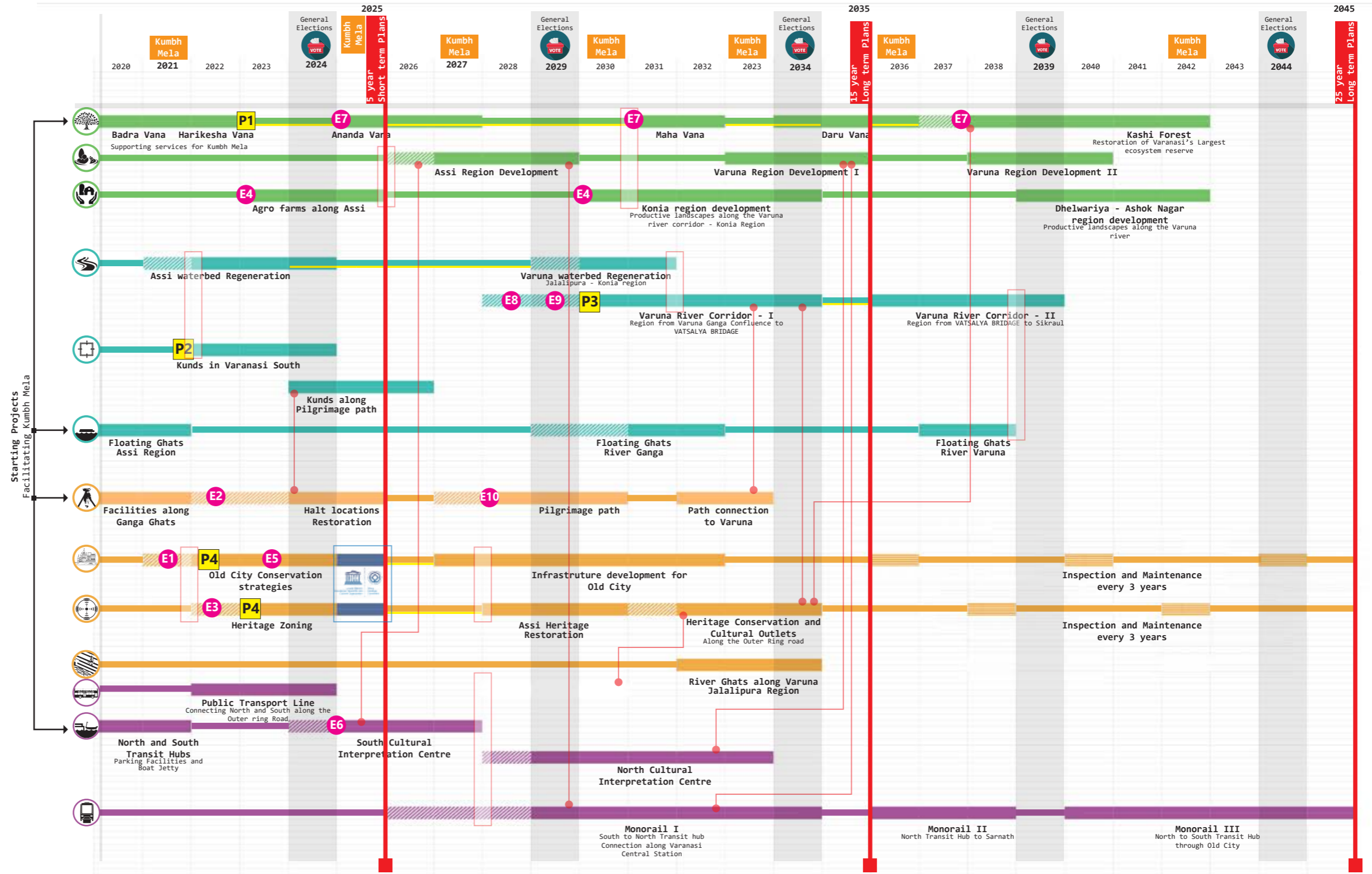


■ Green Related
 ■ Water Related
 ■ Heritage Related
 ■ Accessibility Related

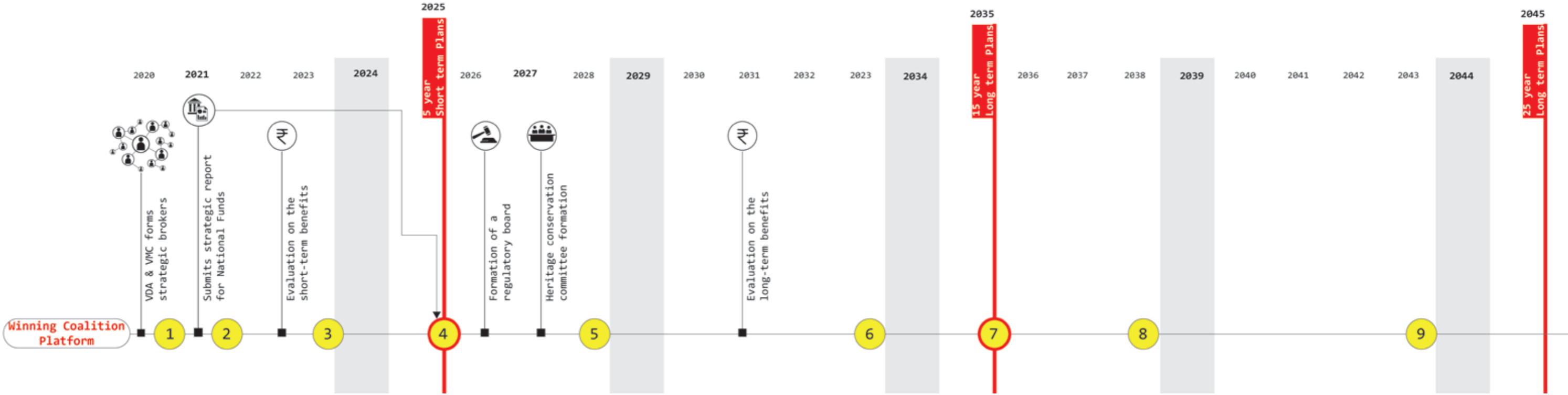
TOWS to Strategies



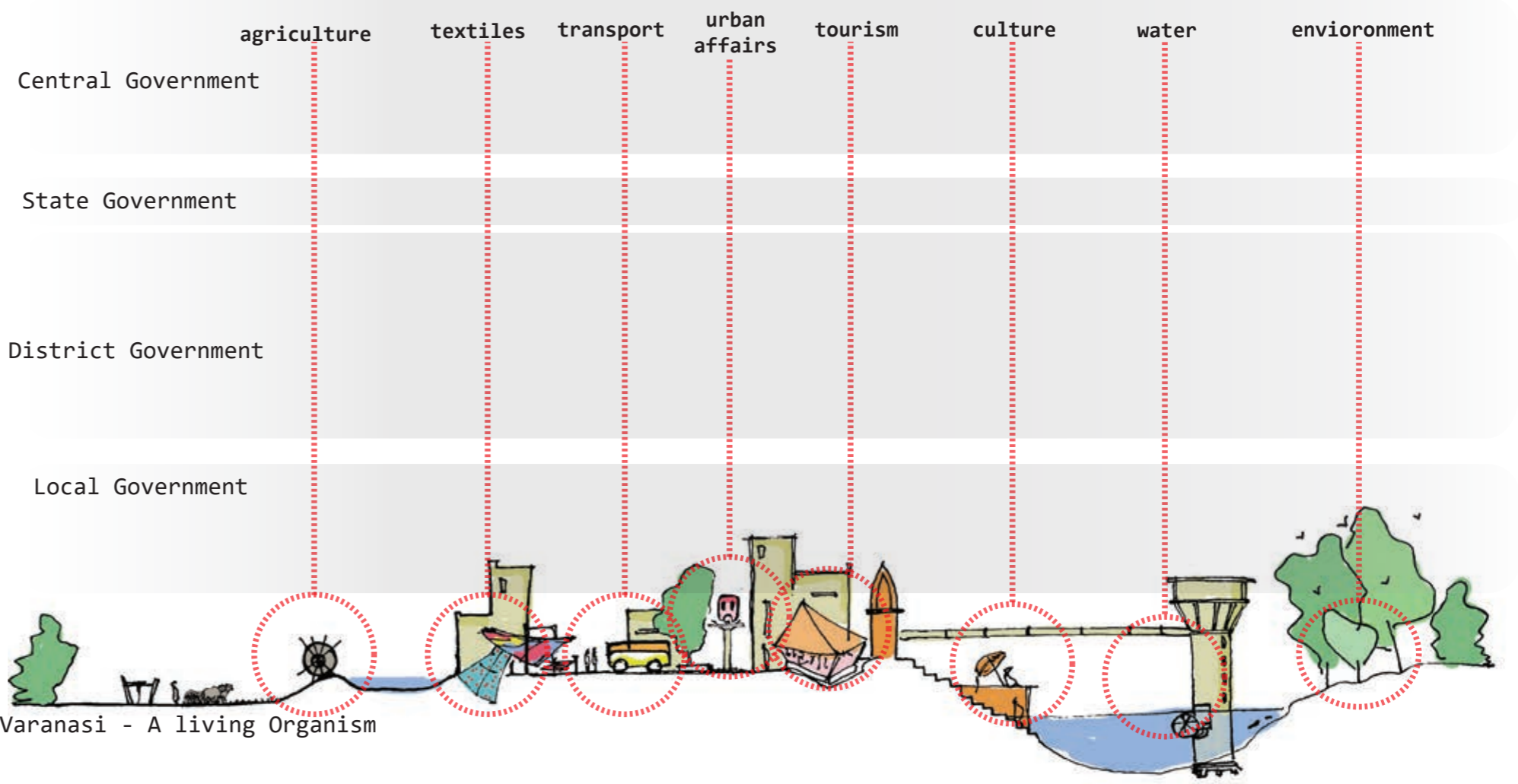
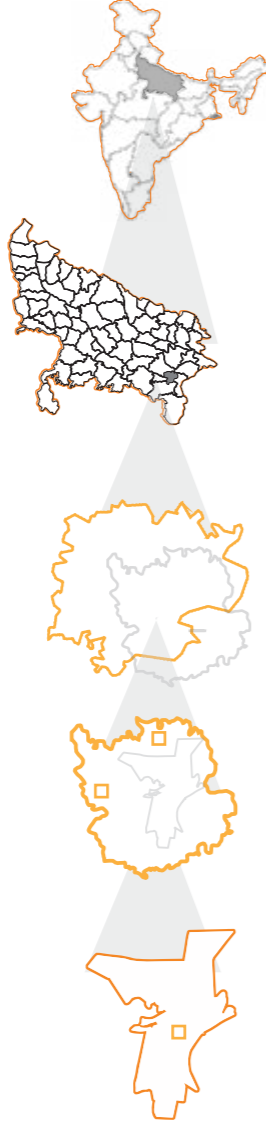
Phasing



Phasing
Winning Coalition Platform

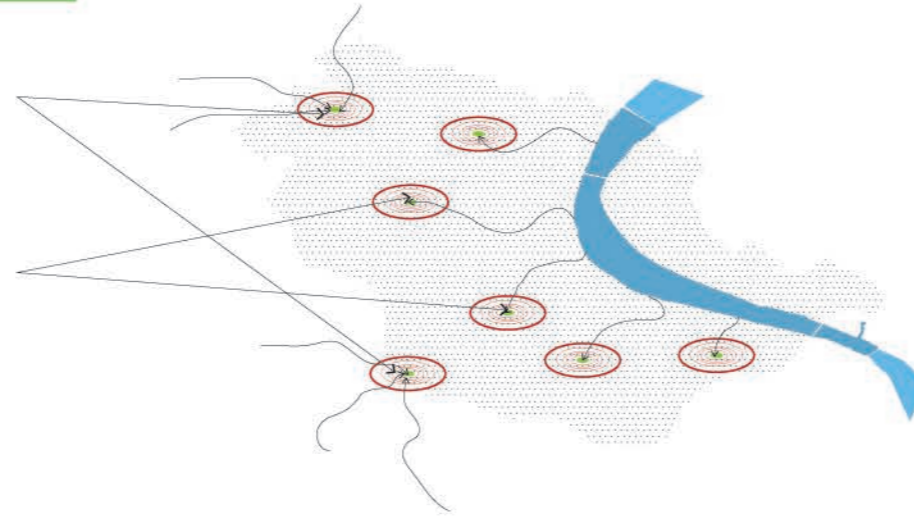


Bridging Governance Ladder



Strategy Design Components

Project 02 . Activating Open lands



Everyday markets



Street Vendors



Market Fairs



Festivals



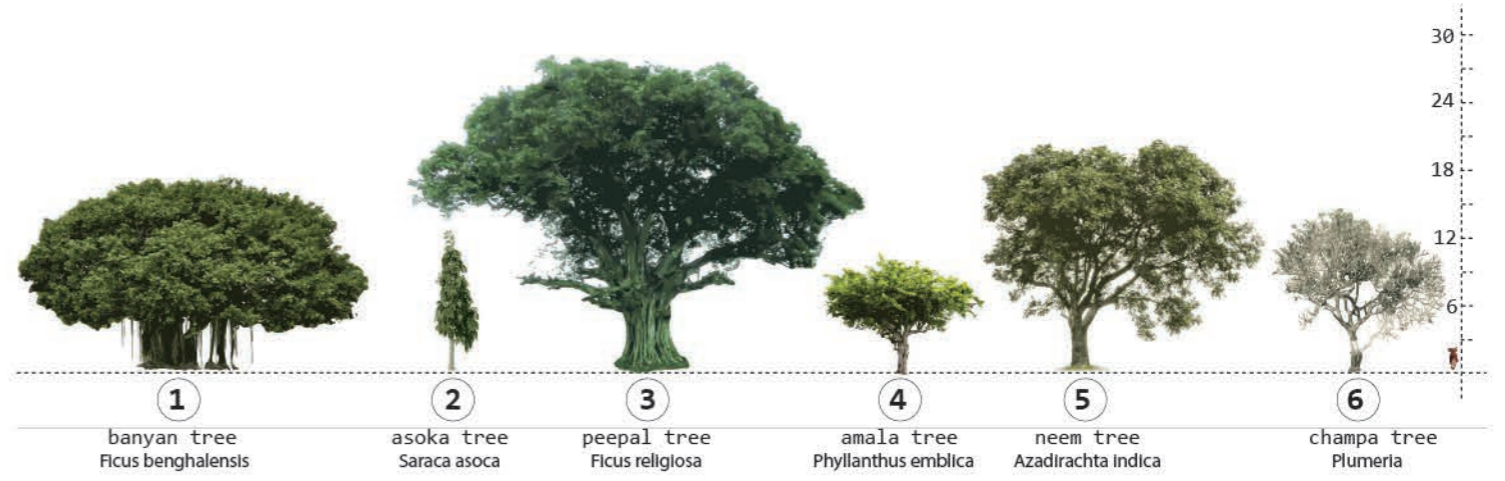
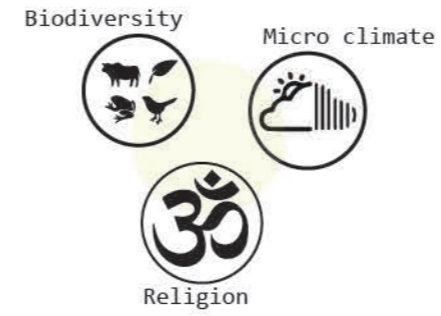
Yoga Festival



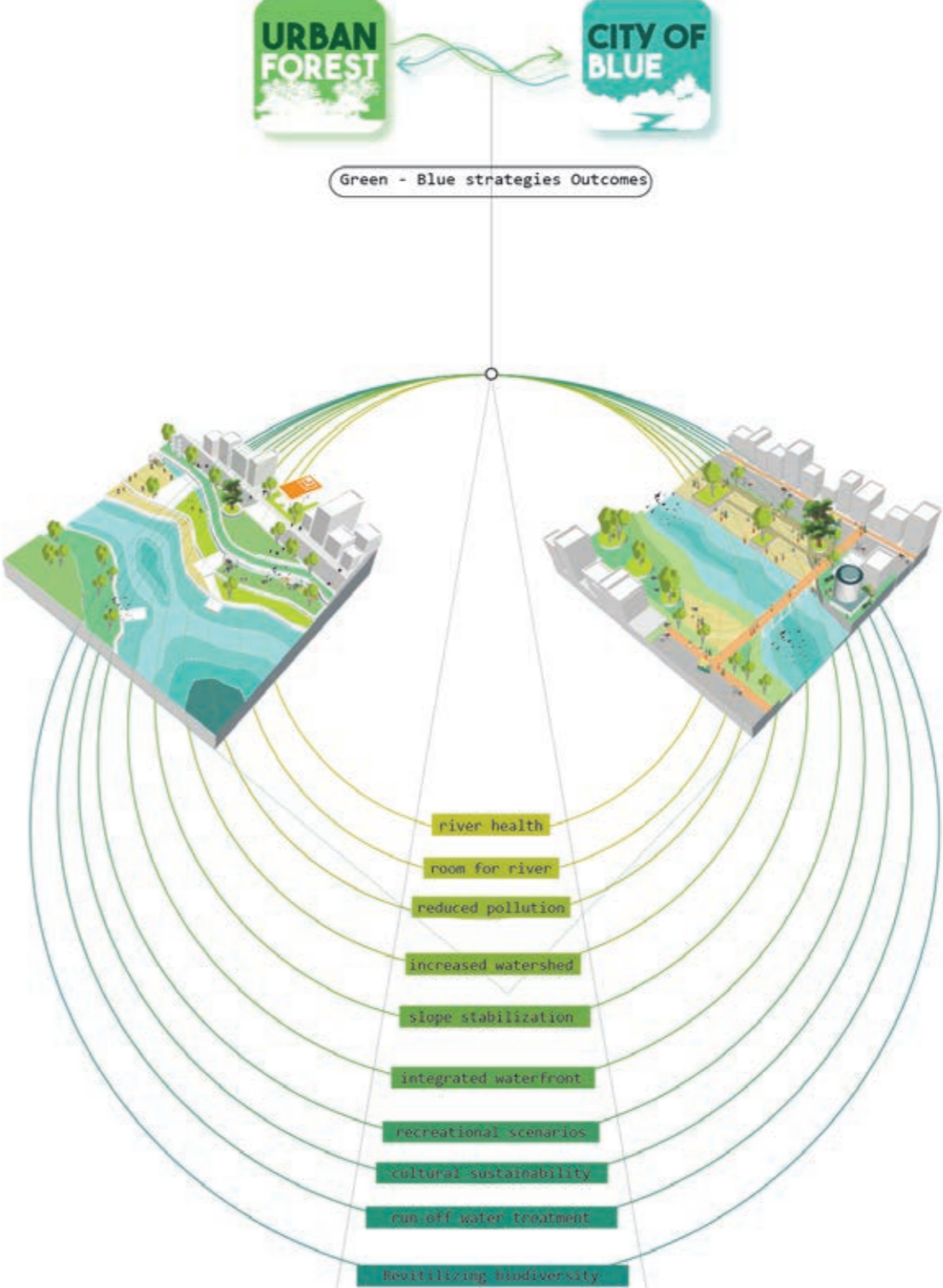
Recreation & Sports



Project 03 . Sacred Green

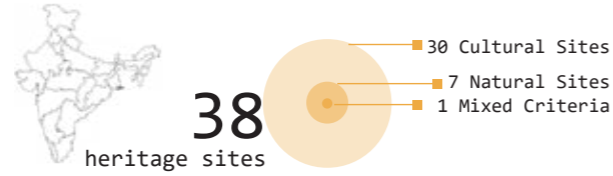


Strategy Design Components



Strategy Design Components

why Varanasi is not a UNESCO HERITAGE city ?



One of the underlying objective of 'heritage city' strategy is to improve the heritage management and human use of the environment that includes river bodies in making this unique religious urban city to be listed in the UNESCO heritage cities of the world.

The World Heritage Centre proposes certain criteria and regulations which the site or location should satisfy from the list for being enlisted. Until November 2017, India has filed 35 properties for consideration which does not include Varanasi due to political differences. (Pravin & Rana, 2017)

Criteria for selecting heritage sites

TO BE included on the World Heritage List, sites must be of outstanding universal value and meet at least one out of 10 selection criteria.

These criteria are explained in the Operational Guidelines for the Implementation of the World Heritage Convention which, besides the text of the convention, is the main working tool on World Heritage.

The criteria are regularly revised by the committee to reflect the evolution of the World Heritage concept itself.

Selection criteria:

- to represent a masterpiece of human creative genius;
- to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;
- to bear a unique or at least exceptional testimony to a cultural tradition or to a civilisation which is living or which has disappeared;
- to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;
- to be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;
- to be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The committee considers that this criterion should preferably be used in conjunction with other criteria);
- to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance;
- to be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features;
- to be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine eco-systems and communities of plants and animals;
- to contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.

The protection, management, authenticity and integrity of properties are also important considerations.

Since 1992, significant interactions between people and the natural environment have been recognised as cultural landscapes.

Source: whc.unesco.org

Image Source : vault.starproperty.my.s3.amazonaws.com

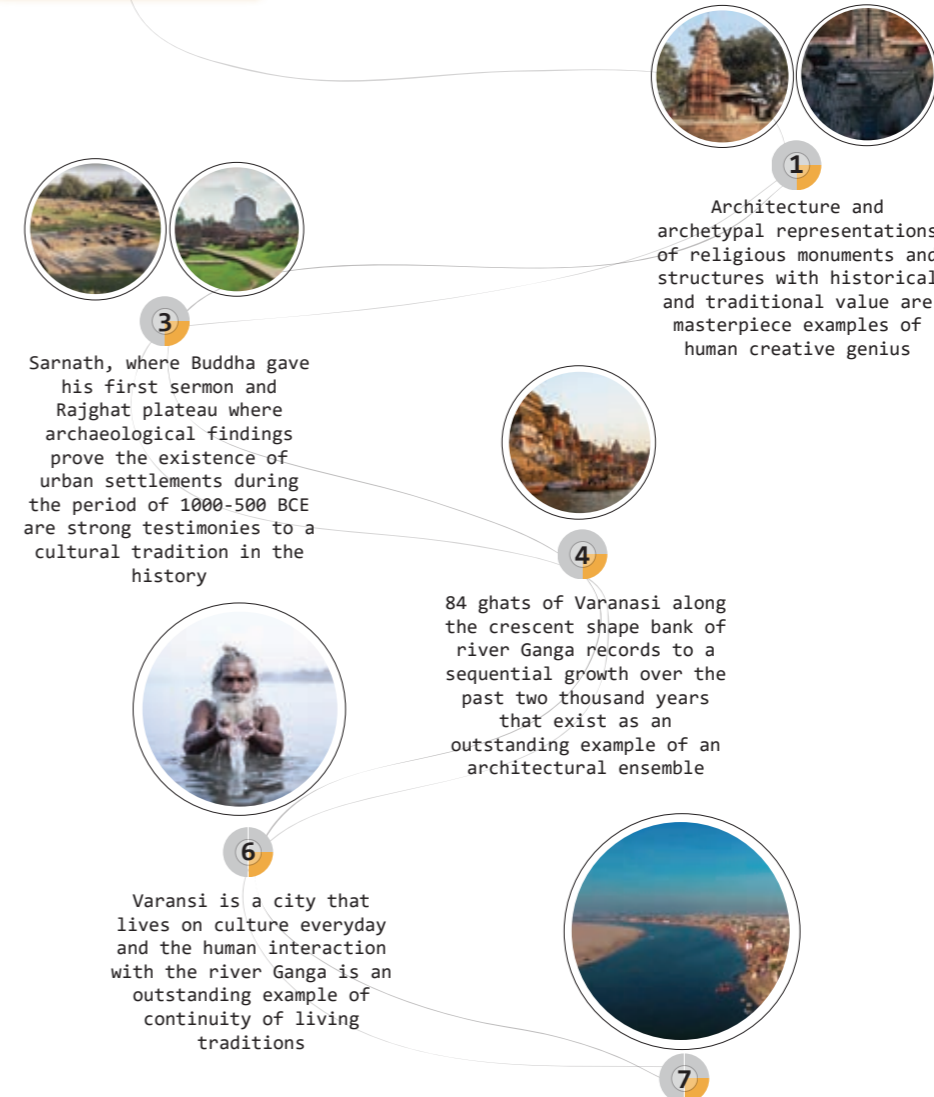
UNESCO Creative city

Although in 2015, Varanasi was enlisted in UNESCO Creative city in the field of Music. It is well renowned for its Banarasi Music, arts and crafts. Over the years, the city has produced famous musicians and artists whose legacy is followed as a tradition in many cultural institutions of Varanasi. There exist an intercultural exchange between artists during famous festivals and events that keeps the traditional music of Varanasi to be explored by the rest of the world.



Satisfying criteria for selection of Varanasi as World Heritage site with reference to 'Varanasi: Heritage Zones and its designation in UNESCO's World Heritage Properties' by Rana P.B. Singh and Pravin S. Rana

Varanasi as a World Heritage Site



Strategy Design Components

why Monorail?

The increasing urban population of Varanasi projects the need for the rapid transport system. A city which lacks public formal public transport within the city has a lot of commuting issues for not only the visitors but also for the residents. This urgency leads to the implementation of the monorail project in the city. The feasibility of monorail in Varanasi is supported by the report prepared by Ernst and Young Pvt Ltd. in their efforts for preparing a comprehensive mobility plan for Varanasi (Ernst&Young, 2009). The feasibility is also supported by a scientific explanation of Monorail from monorails.org. The reasons for the choice of monorail as the main rapid transit system is given below

Although expensive, monorail suits well with the PPHPD of Varanasi which could change in future with a growing population. But with other accessibility strategies of land water transport and traditional transport means, the count of PPHPD can be kept within 5000-6000 which is optimum for the monorail (Ernst & Young Pvt Ltd., 2009).



Comparing to other transit mediums such as heavy rail and light rail, monorail transit system projects certain other spatial and aesthetic advantages

Heavy rail

This mode of rapid transit system requires much wider roads for its implementation and the roads of Varanasi are quite narrow for rail lines to be installed. Installation of Heavy rail is very expensive also



Light rail

Varanasi could adopt a light rail transport system but the shared use of road along with other users of the road makes it more difficult in Varanasi for the implementation of light rail. Also, light rail requires a spider web of wires with support posts which will look obtrusive as the proposed line passes through dense roads of Old city of Varanasi



Monorail

As monorails are single track for passenger vehicles, it exists as only one beam casting least shadow and disturbance to the path it follows. The biggest advantage of Monorails is that it is wider than the supporting guideway



Taking some case studies of Monorail projects from the world, there are few more advantages of using Monorail transit system. One of the major advantages of using this monorail transit system is that it mitigates the use of private vehicles around the city, thereby reducing pollution.



Hide stations
eg. Sydney monorail city center station
Source: monorails.org



Hide tracks within Buildings
eg. Oasis Shopping Centre Broadbeach
Source: ci.staticflickr.com



Green Corridor
eg. Chongqing Rail Transit, China
Source: monorailsaustralia.com.au



Less Width
eg. Walt Disney World Monorail System
Source: 31.media.tumblr.com

why Elevated?

The proposed monorail in Varanasi takes an elevated position and mainly uses the space next to the **existing railway line** within the city limits in creating a portion of the monorail track. The reason for the choice of an elevated platform is shown below in comparison to other ways.



Shared Path



At Grade

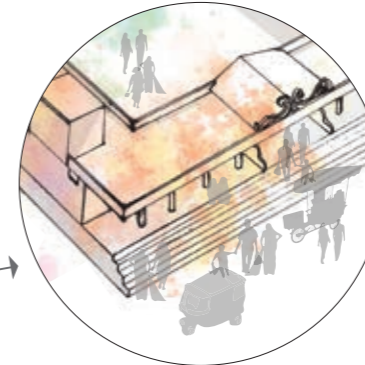
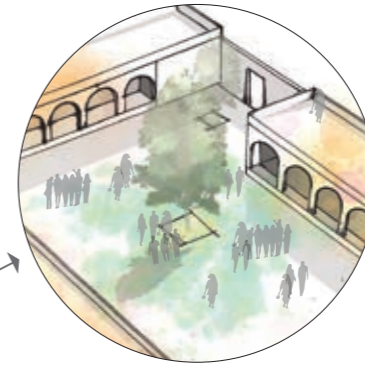
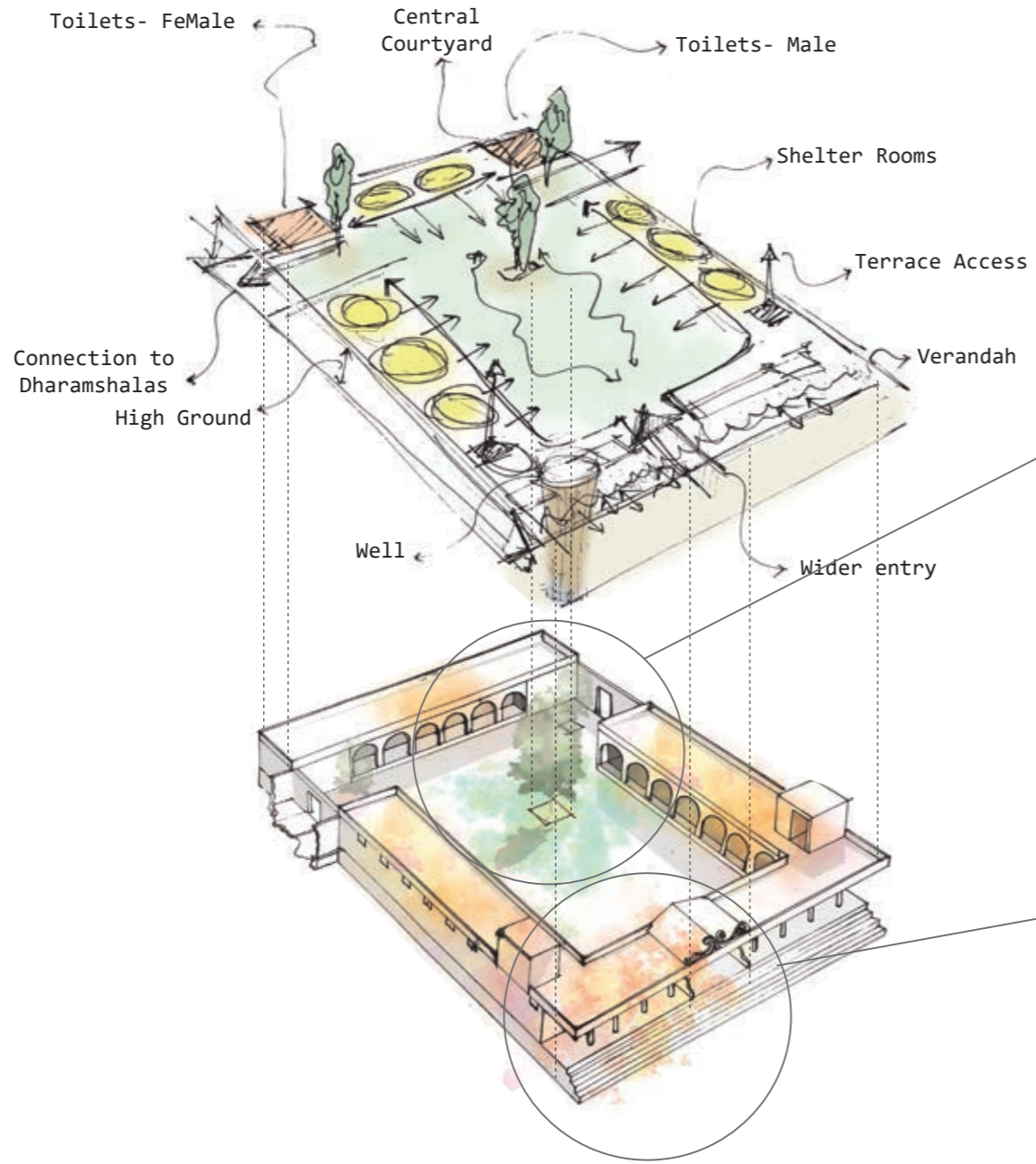


Underground



Elevated

Lack of width rules out the possibilities of transit system to be constructed sharing the road or at grade. The intension of strategy is also to create a pleasant environment to the travellers to get an experience of the old city of Varanasi as the rail moves through and the underground option completely rules out this experience into a darker environment



Off Pilgrimage Season

Pilgrimage Season

- Community Gathering
- Village School
- Cultural Outlet
- Tourist Heritage Stay

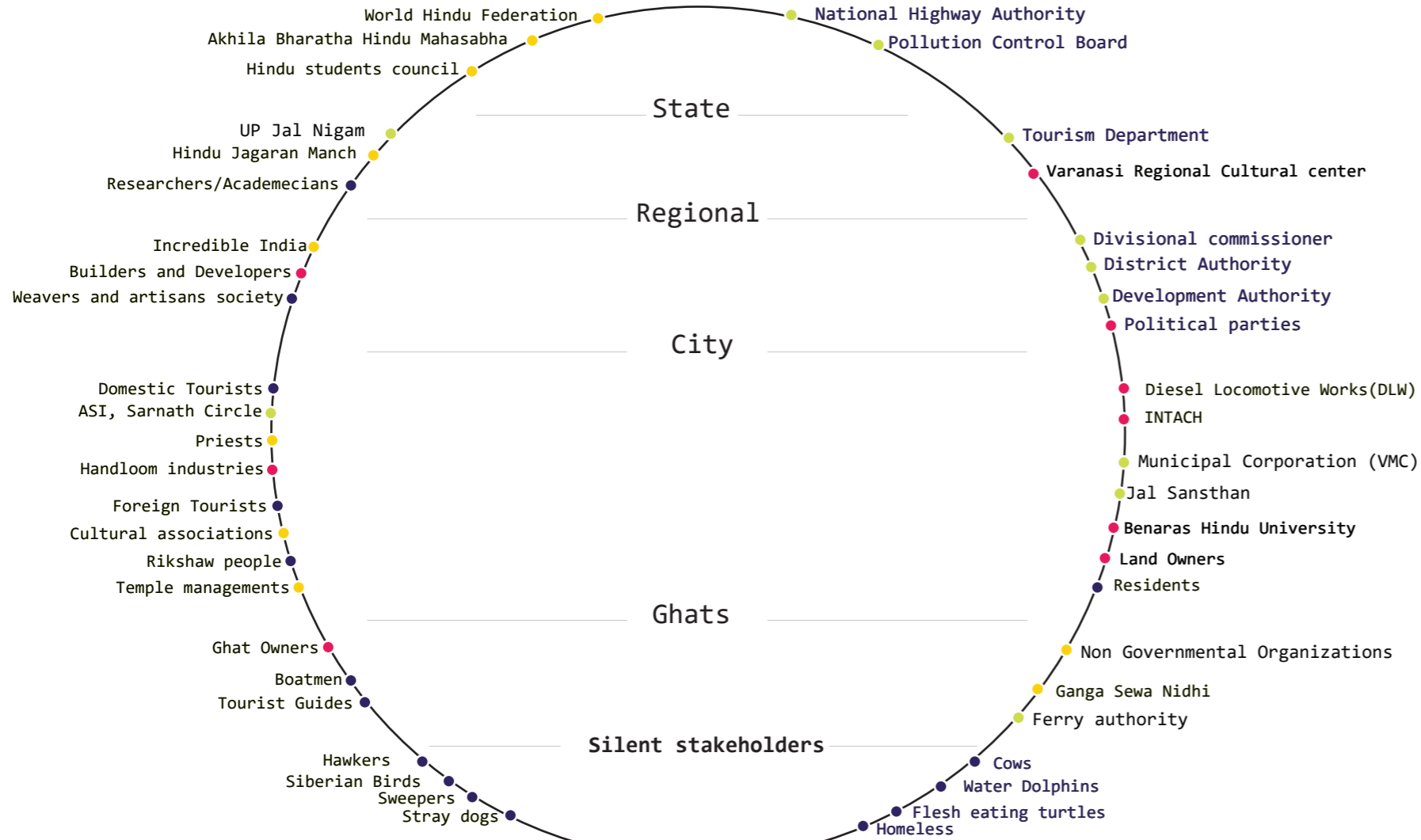
Pilgrim Shelter

Village Street

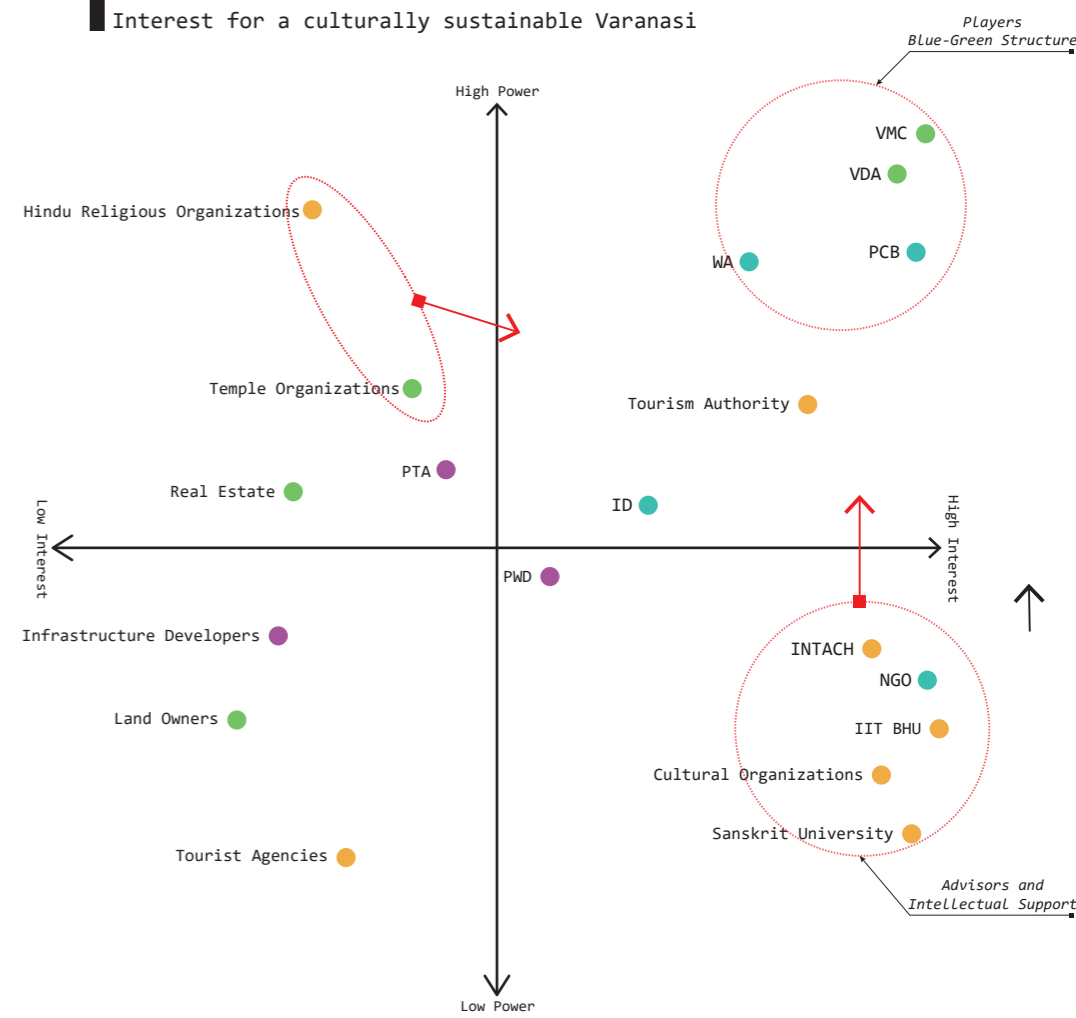
Pilgrim Resting



Stakeholder Engagement



- Religious/Cultural
- Private/Independent
- Government
- Civic community



- Urban Forest Stakeholders
 - City of Blue Stakeholders
 - Heritage city Stakeholders
 - Accessible city Stakeholders
- VMC** -Varanasi Municipal Corporation
VDA -Varanasi Development Authority
PWD -Public Work Department
PTA -Public Transport Authority
NGO -Non Government Organization
ID -Irrigation Department
INTACH - Indian National Trust for Art and Cultural Heritage
IIT BHU-Indian Institute of Technology Banaras Hindu University
WA -Water Authority
PCB -Pollution Control Boards

Stakeholder Engagement

