
Portfolio

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Urban design 01

urban design of ecological New Town--Xialu District, HuangShi City, China



Urban design 02

urban design of characteristic small town Town--Sangye town, Tibet, China

Urban Design : Ecological New Town--Xialu District, HuangShi City

Location: Xialu District, Huangshi, Wuhan City, China

Area: 817ha

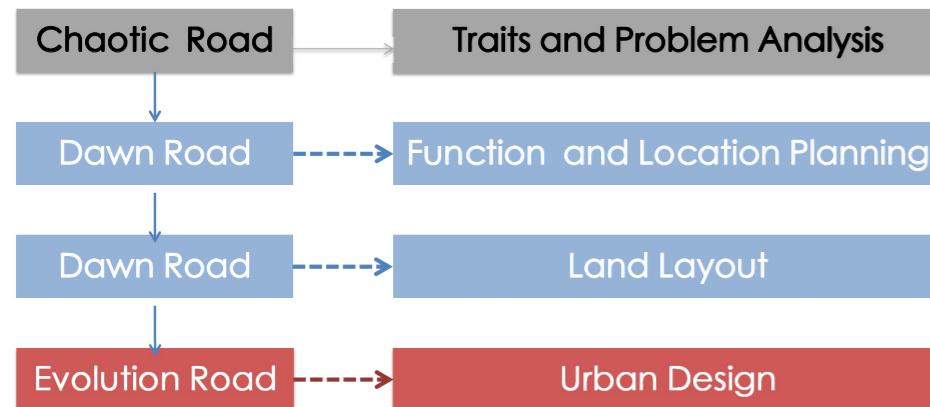
Collaborator: LI rui, WANG hui, SUN shuang hui

Individual parts: Concept analysis & Comprehensive plan



Project Narrative : HUANG SHI, originate from the Qin Dynasty, is an important carrier and the epitome of smelting magnificent culture of Chinese civilization. Along the river and city spatial expansion, strip extending form created group multiple city Tiehsn,xialu, Mission Hill City, relying on the industry function, carry out their duties. However, with the gradual exhaustion of mineral resources, Huang shi city facing a critical period of transition, so is the Xialu District, which is a local industrial base. Recently, along with the republished issue of new ecological city of Xialu District, provides a new opportunity and space for transformation of the Xialu District and Huangshi City.

Overall design strategy



Traits and problem analysis

1. The rapid urban transformation

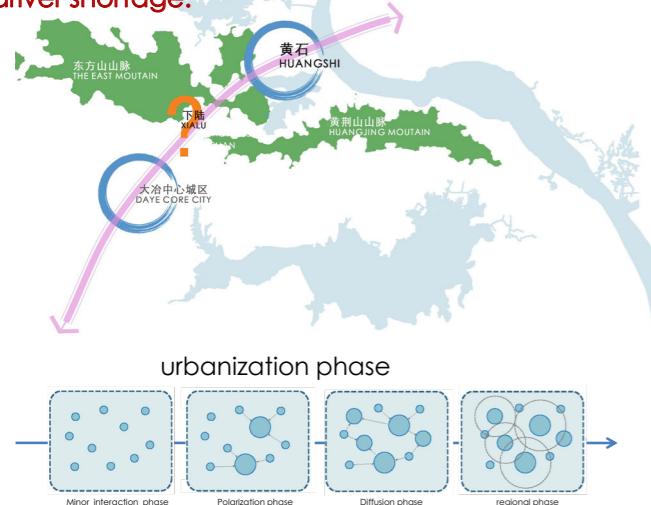
1.1 Important Fulcrum of Communicate

Economic integration of the Yangtze River in the bottom of the pyramid urban structure fulcrum city.



1.2 Frontier Field of Melting Urban

Integration strategy:
insufficient space for development and development
driver shortage.



Background



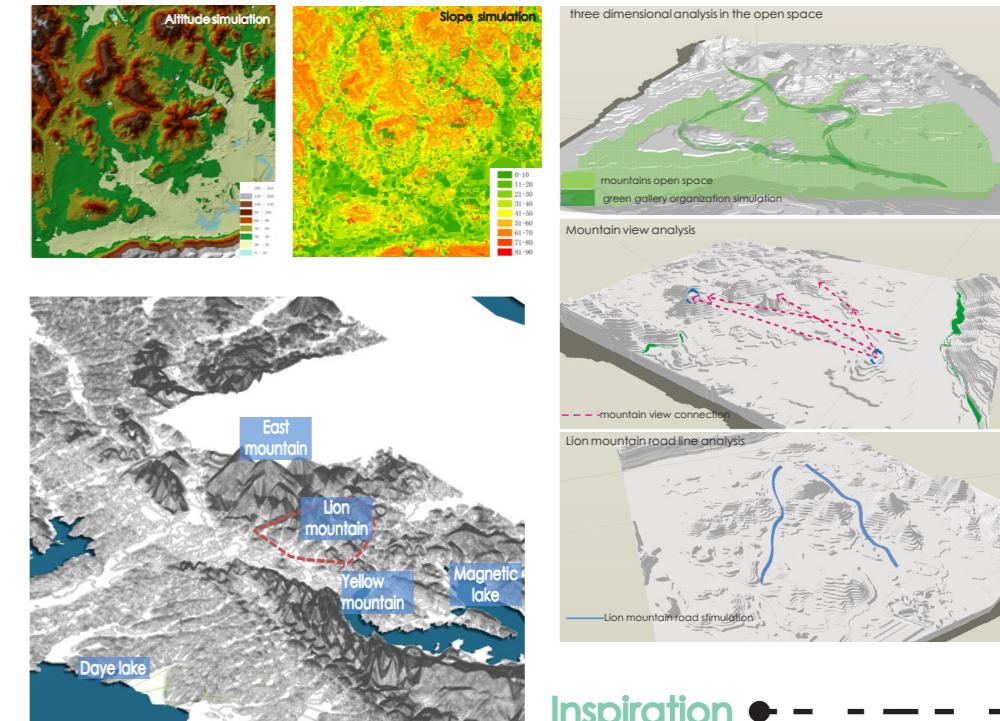
2. Long history of mining and metallurgy culture



Inspiration

East iron and steel factory is the representative of the old industrial base. When transforming function, its aesthetic value and historical value should be preserved, also its rich social and economy value provides a sufficient condition to trans.

3. Ecological environment analysis

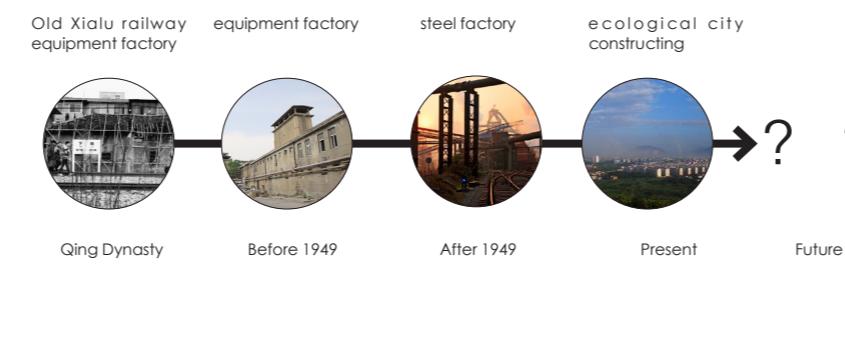


Inspiration

Varied geomorphic conditions and abundant resources offer a excellent opportunity to enhance the quality of environment.

Inspiration

Huangshi originated in ore mining industry and Xialu district is one of early city in industrial and mining areas. Huangshi is facing the crisis of transforming. Xialu is one of the interactive development of node between Huangshi and Daye. Therefore it plays an important part in transforming and its transforming should be considered as combination .



Traits and problem analysis

4. Focus of chaotic road

Focus 1 What role to play in Huangshi city development——function positoning



Focus 2 How to use and preserve the Xialu mining cultural



Focus 3 How to provide enviornment protection and low-carbon lifestyle using the abundant natural resources



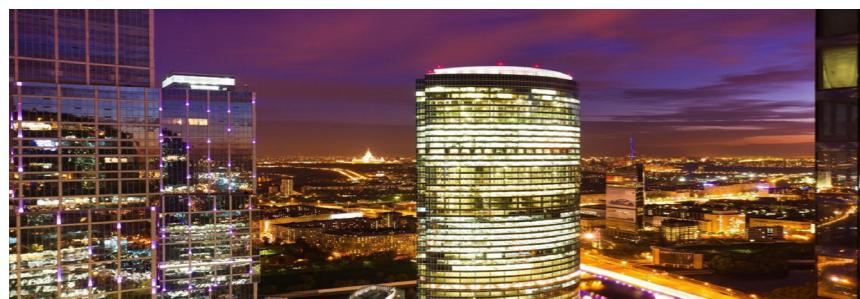
Function and location planning

1. Solutions

Solution of focus 1

1. The eye of Huangshi

Analyse the upper level urban planning, natural resources, polities and related planning cases. We regard Xialu as the eye of the Huangshi. Its development will contribution a lot to huangshi. Also Xialu should show its unique, through its resources.



Solution of focus 2

1. Display platform

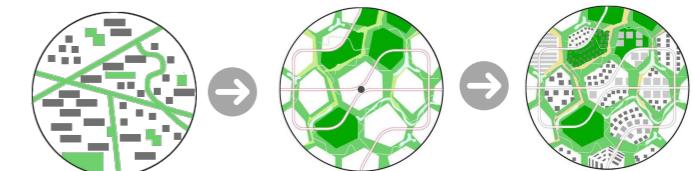
Transforme East steel factory into multiple public functions as a display platform. Contains industrial park, exhibitions, conferences, academic research, sales, and other functions. Became the modern culture of mining and metallurgy display window.



Solution of focus 3

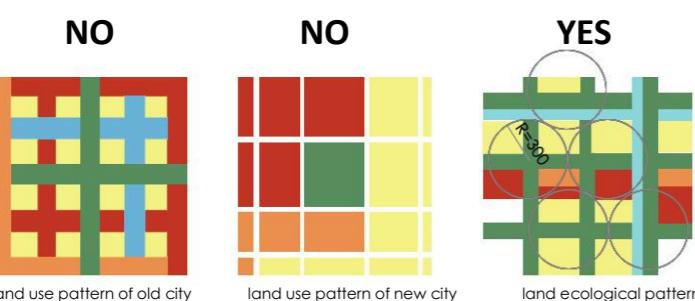
1. Green veins can continue

deal with the relationship between protection and development, maximize the preserved area of ecological mountain, through the green belt connection, interact with surrounding mountains, build renewable green veins.



2. The diversity of neighborhood space

Using small scale neighborhood, surrounded with green veins of the communication space, forming diversification.

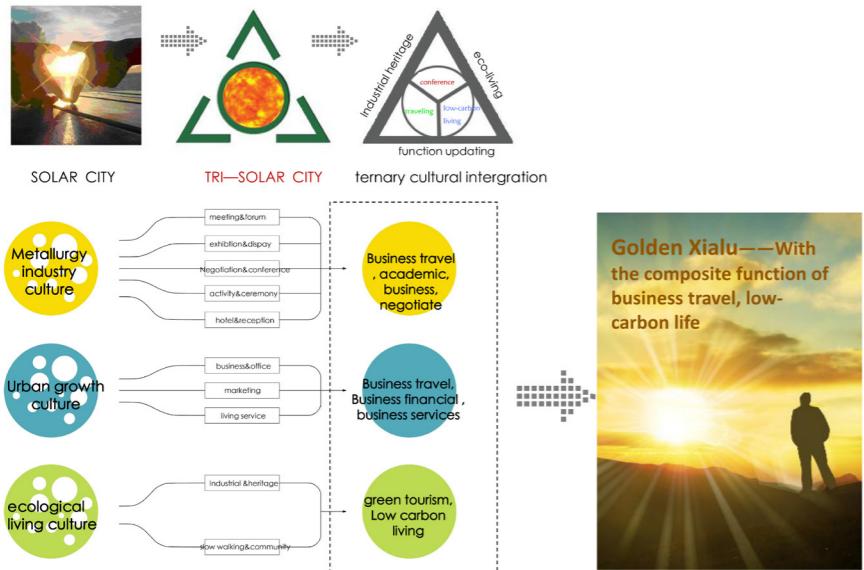


3. The slow city can build

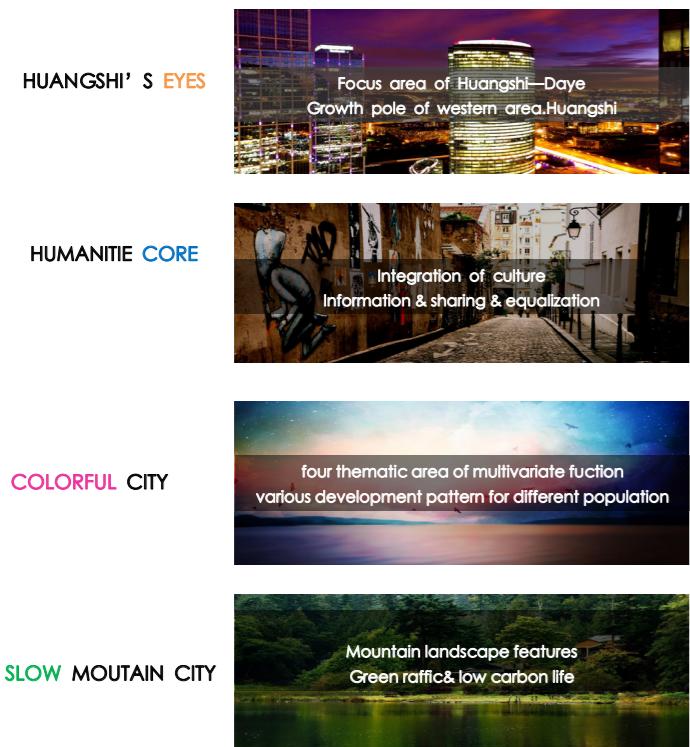
Green belt network and small scale construction, encourage people to use walking and cycling, reduce carbon emissions, increase community vitality, create a slow city.

Function and location planning

2. Concept: ternary cultural integration



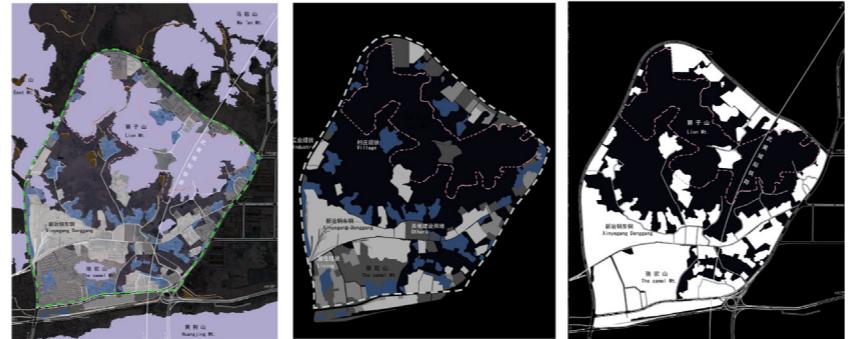
3. development and positioning



Land layout

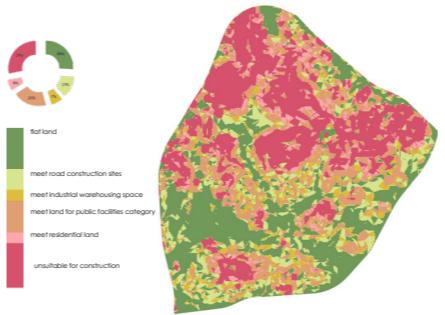
1. Base features Interpretation

1.1 Land development and utilization



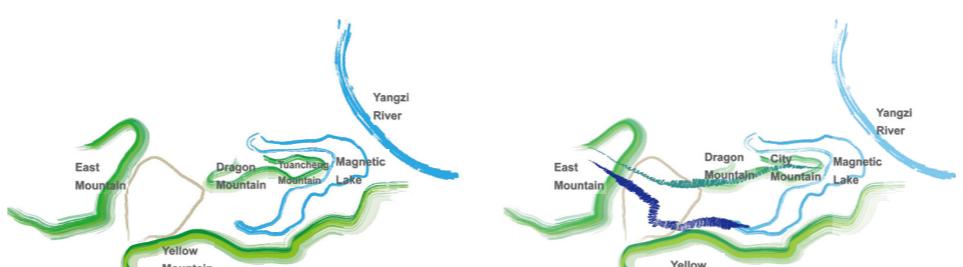
1.2 Excellent ecological resources & high ecological sensitivity

Planning through land ecological suitability assessment analysis, according to the nature of land use, land-use categories judged are available, will be the extent of the construction division of the land into six grades: flat land, to meet road construction sites, industrial storage class meets land, to meet the public facilities category land, to meet the residential category of land, construction land unsuitable.



2. The overall concept of land layout

2.1 Distinguish the landscape pattern of large area



Conform to the landscape architecture

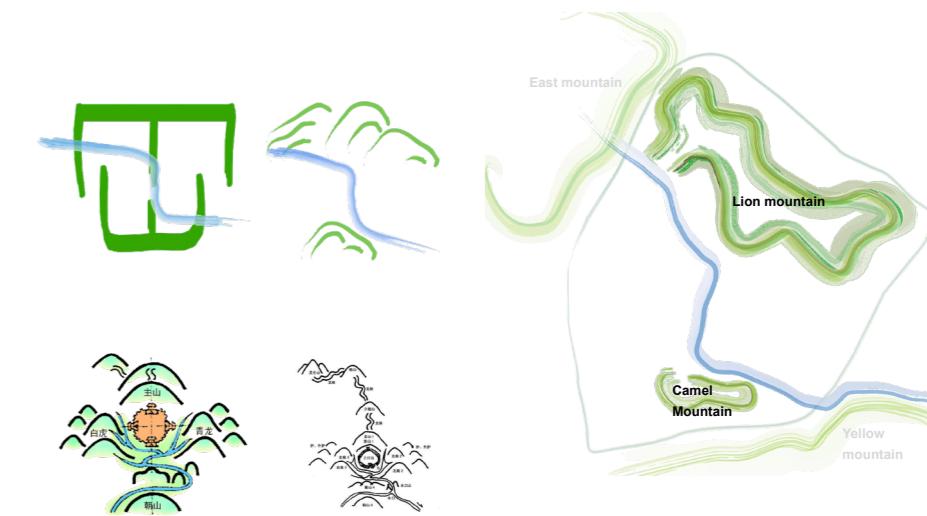
Blending the whole area into a large landscape base and follow "two dragons playing with a pearl, magnetic lake in the West Bank"

The surrounding landscape pattern recognition

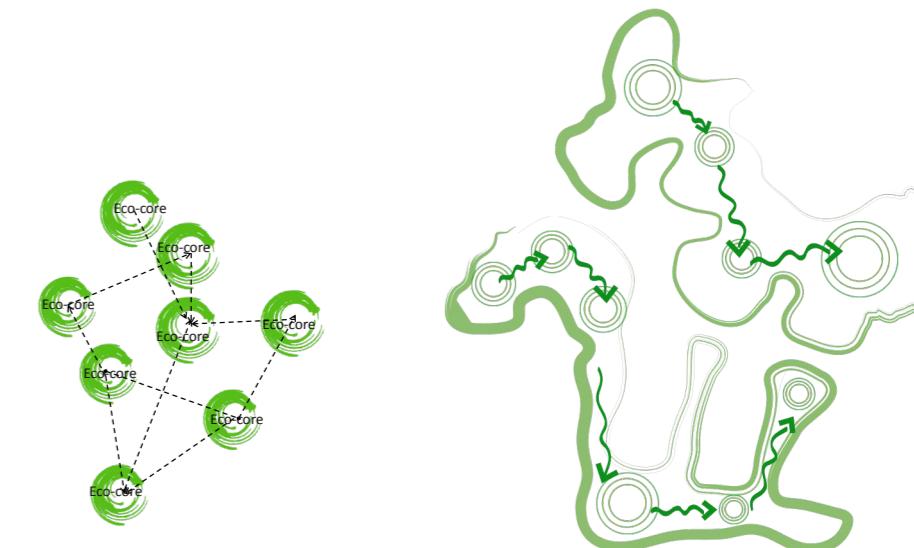
Through the analysis of base internal conditions, from the perspective of regional harmonious co-prosperity, Blending the base into the landscape pattern, eventually forming a green channel among mountain green and a channel across lakes.

2.2 Digging internal ecological base

(1) Strengthen "two mountain confrontation, monohydrate slipstream" characteristics of places



(2) Maximize the retention base inside the mountain, in series to form ecological corridors



In addition to retain the basal internal ecology base good two mountains: lion, camel mountain, preserve the other good preserved mountains to form landscape nodes. Through the connecting of every eco-core, forming a base inside the basic ecological pattern and pay attention to build the line of sight of corridors between nodes.

Land layout

2. The overall concept of land layout

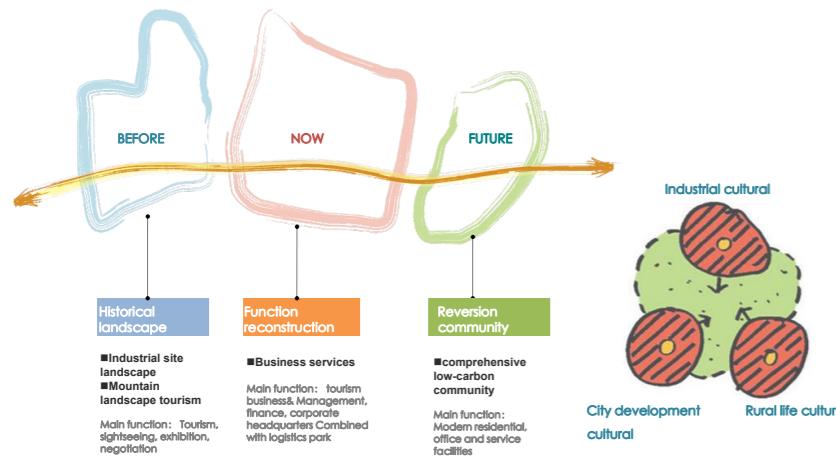
2.3 Exhibiting the regional context culture



Using East mills Factories & exhibiting Mining and Metallurgy Culture

Keep good condition plants and using relocation of steel plants as a opportunity to build the example of the old industrial culture.

2.4 Functional groups connect development of time and space



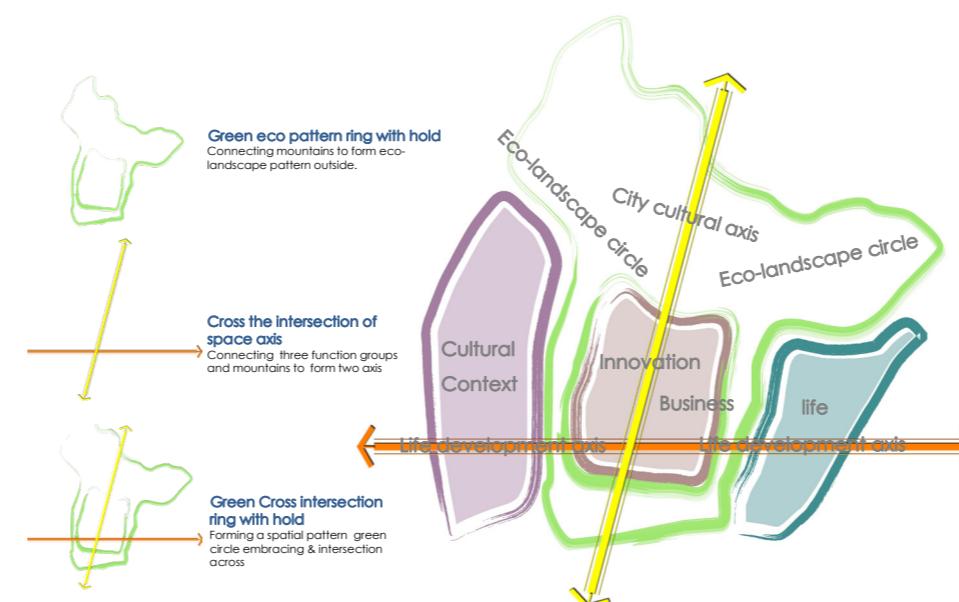
2.5 Tic-tac road system

Road system——“Tic-tac” main road system based on the space

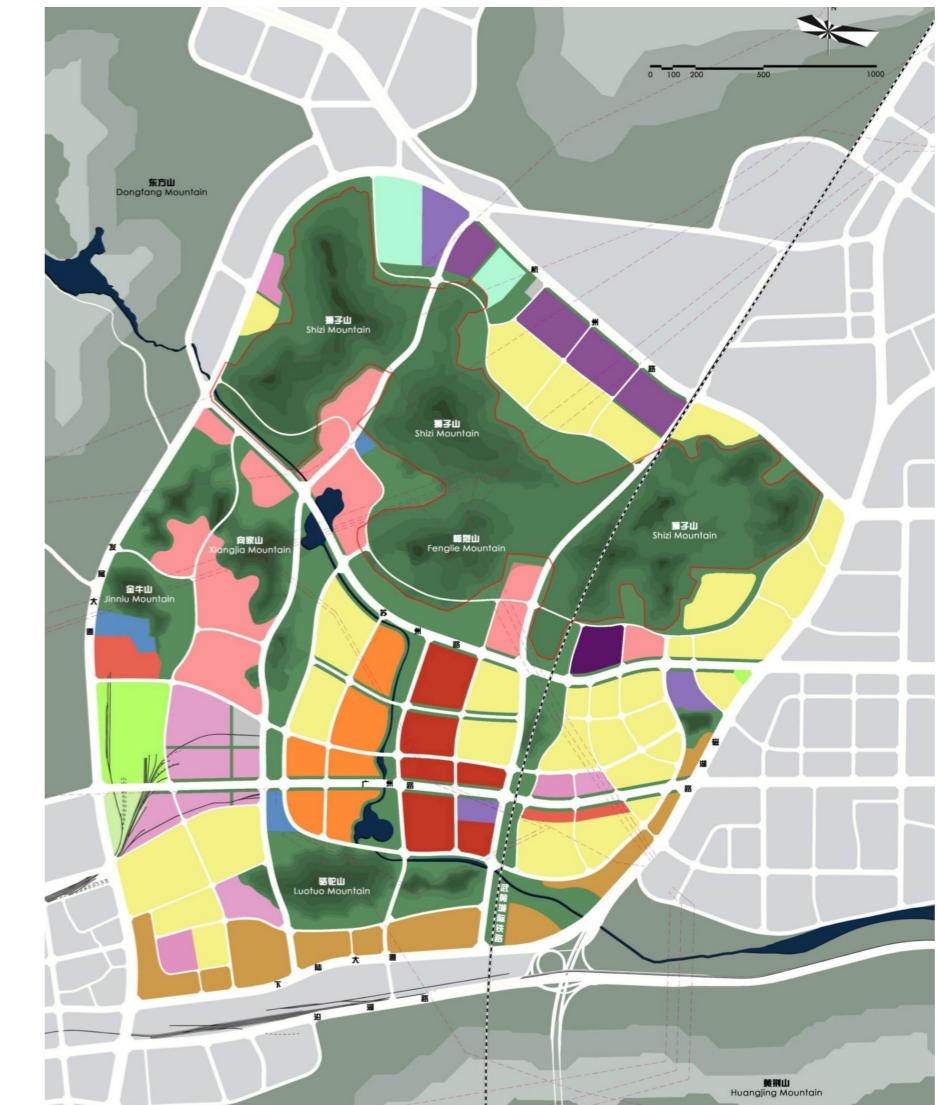


2.6 Planning structure

Spatial pattern : green circle embracing & intersection across



2.7 Land use planning





Urban design

1. Comprehensive urban design

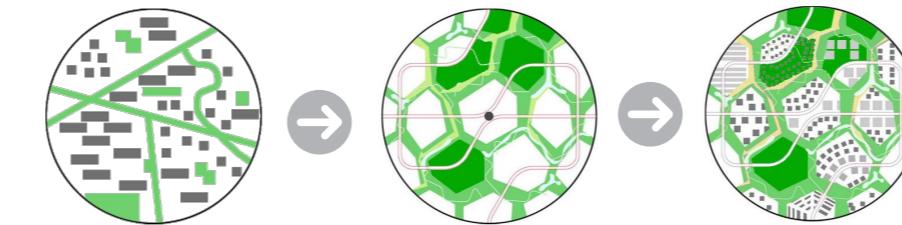


- 1. East steel historical community
- 2. East steel cultural center
- 3. East steel memorial square
- 4. Mining & metallurgy exhibition
- 5. Arts and crafts commercial street
- 6. Trading center
- 7. Counseling center
- 8. Cultural corridor of mining and metallurgy
- 9. East steel memorial park
- 10. Hotel
- 11. Dark green tourist area
- 12. camel mountain park/lu tower
- 13. Ping architecture
- 14. Leisure shopping street
- 15. Pedestrian steps frame
- 16. business financial district
- 17. business's financial district
- 18. Finance center
- 19. Underearth building
- 20. Wu Huang intercity railway
- 21. community service center
- 22. Low carbon ecological community
- 23. Huangshi psychiatric hospital
- 24. Social welfare center
- 25. Winding mountain trails
- 26. Sang tower
- 27. Huangshi compulsory rehabilitation centers
- 28. Huangshi city civil air defense

2. Concept of urban design

2.1 Slow city

(1) The diversity of neighborhood space



(2) The slow city can build



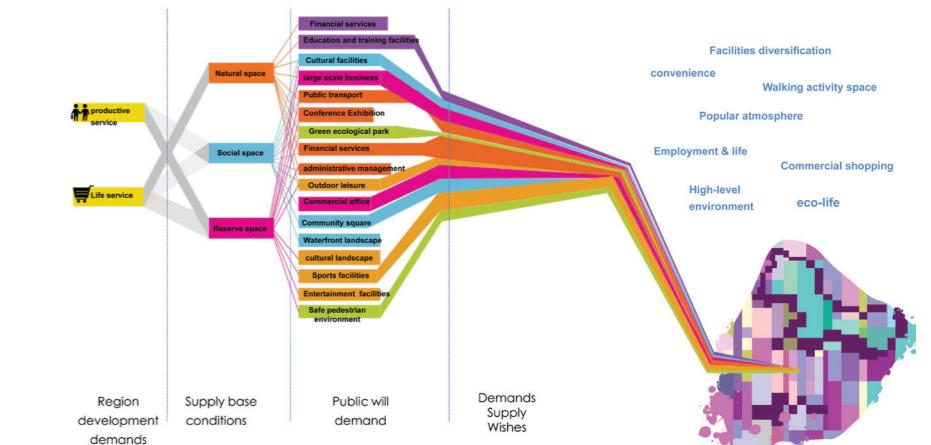
2.2 City's texture

The diversity of neighborhood space



2.3 Colourful city

Based on the demands of diverse spatial development



3. Slow traffic planning

3.1 Humanistic space walk





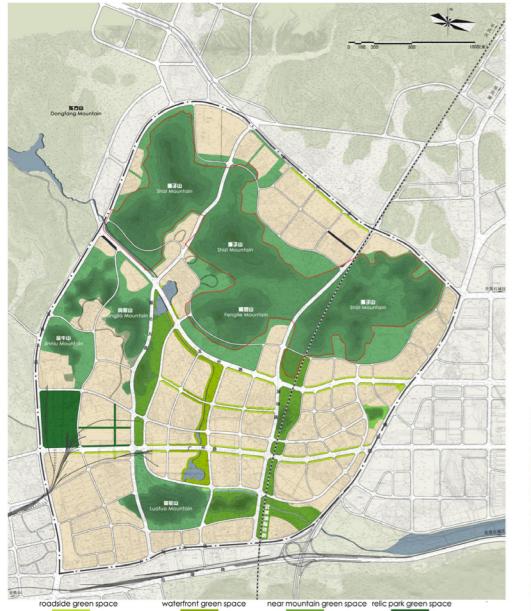
Urban design

3. Slow traffic planning

3.2 Humanistic cycling corridor



4. Landscape green space planning



Take full advantage of the base of the mountain landscape resources , emphasize the harmonious relationship of City -nature . Use mountains as the skeleton of open space. At the same time use road greenings as a media, to keep continuous public greening on the space.

5. New city green ring

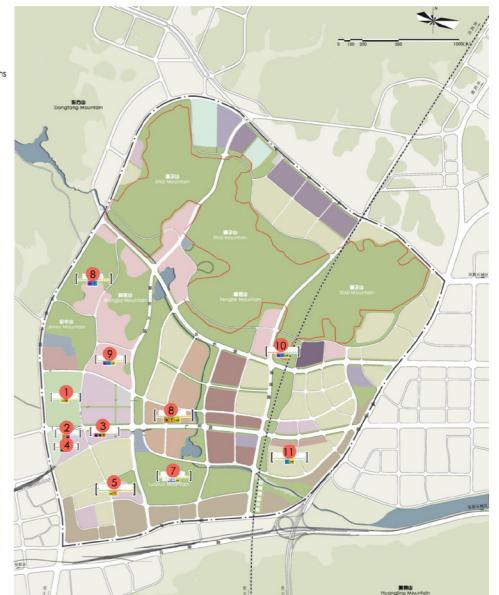
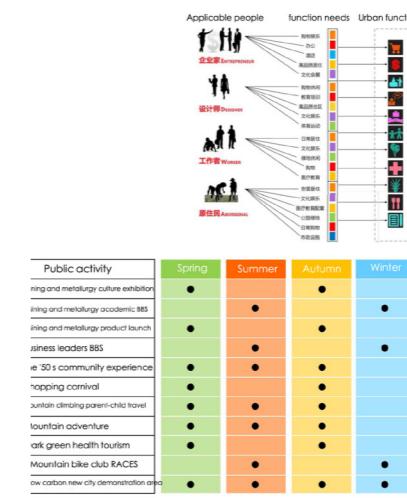


6. Public space planning



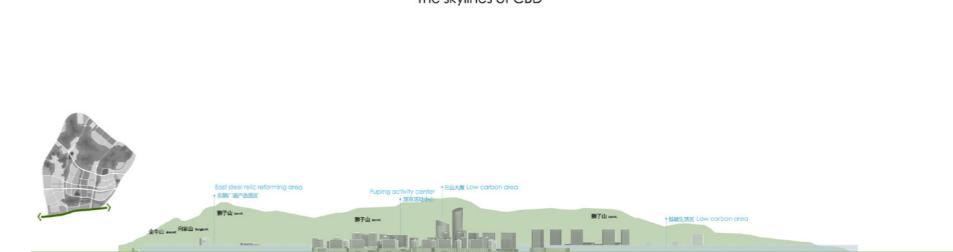
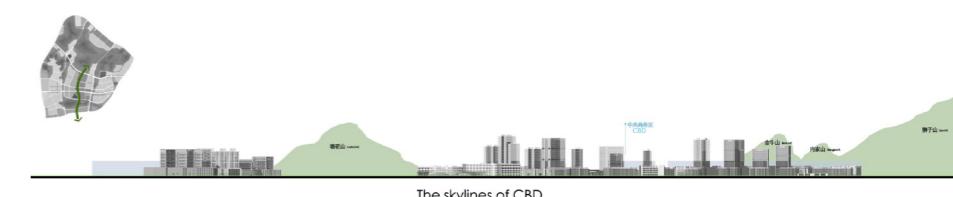
Strengthen the public role of reserved mountain& industrial architecture in building public space, based on the central part, to build Spatial order of "one river, both sides, many nodes".

7. Public events planning



In combination with the east steel industrial site, camel mountain,mountain park and central business district (CBD), etc. According to the characteristics and their own conditions in 4 seasons, design public activities possessing local characteristics and the participation. Ensure large public activities exist all the year round , put an end to "empty city" phenomenon, enhance the cohesion and attraction of ecological new town.

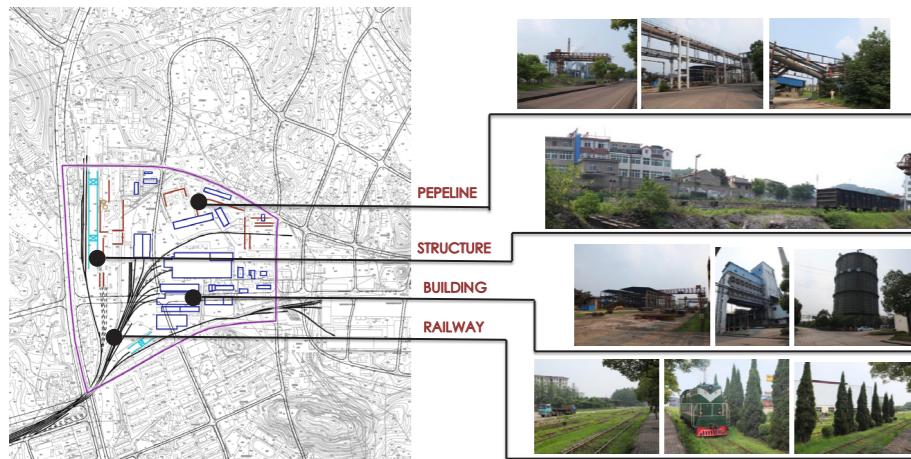
8. Skylines



Urban design

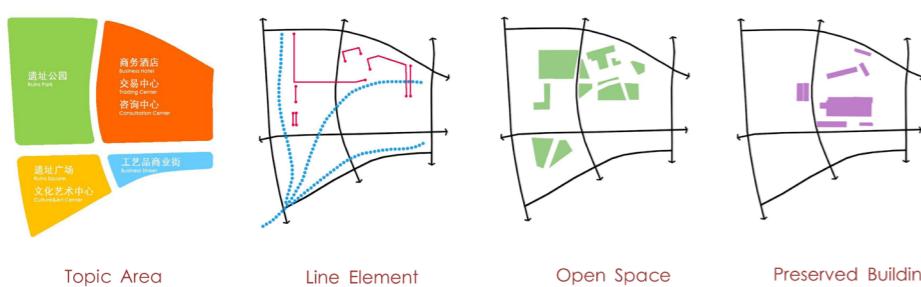
9. Key sections of urban design - the East steel mill renovation

9.1 Base analysis



9.2 Design philosophy

Inheritance & Newborn



9.3 Layout

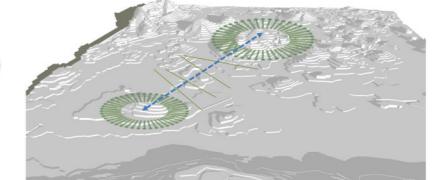
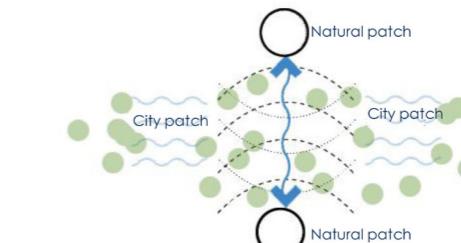
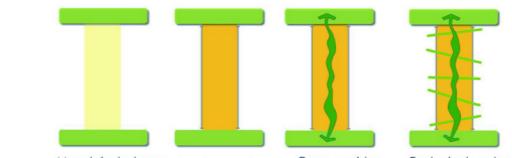


9.4 Design sketch

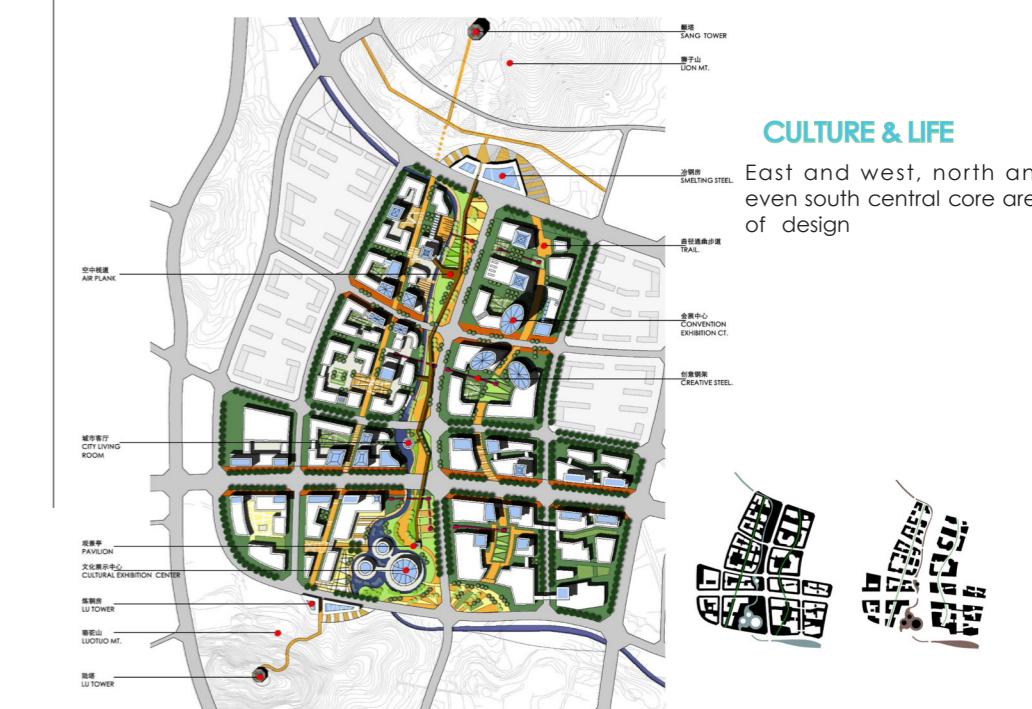


10. Key sections of urban design - The central business district (CBD)

10.1 Design philosophy

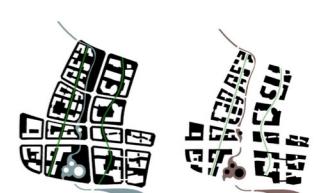


10.2 Layout



CULTURE & LIFE

East and west, north and even south central core area of design





Urban design

10. Key sections of urban design - The central business district (CBD)

10.3 Landscape view diagram



10.4 Design sketch



11. Aeroview

Overall aeroview



Urban Design : Characteristic small town Town--Sangye town, Tibet, China

Location: Sangye town,Tibet,China

Area:386ha

Collaborator: SUN shuanghui, WANG hui, HUANG shixiu

Individual parts: Concept analysis & Comprehensive plan & Tourism strategy

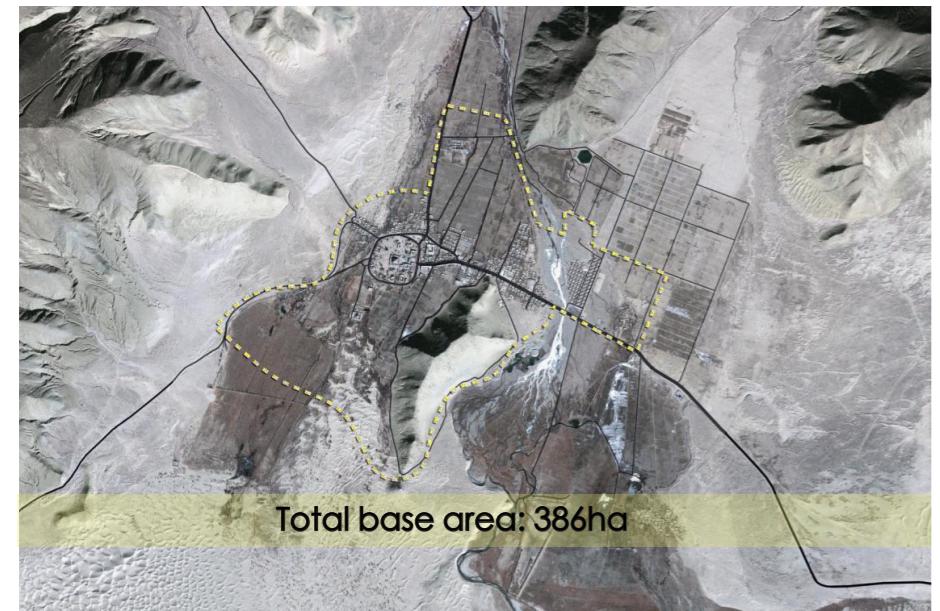


Project Narrative :Sangye town is one of the first 20 characteristic small demonstration towns in Tibet and is famous for its historical and cultural resources, which can reflect the source of Tibetan culture. Along with the 1hour economic circle of Lhasa, it adds much advantages to the development of Sangye. This design need to seize the chance to explore the culture, which be used to attract tourists. And explore its feature to develop sangye as a successful demonstration.

Overall design strategy



Background



Traits and problem analysis

1. The rapid urban transformation

1.1 New era development

Policy to enhance the development of the characteristic of small towns

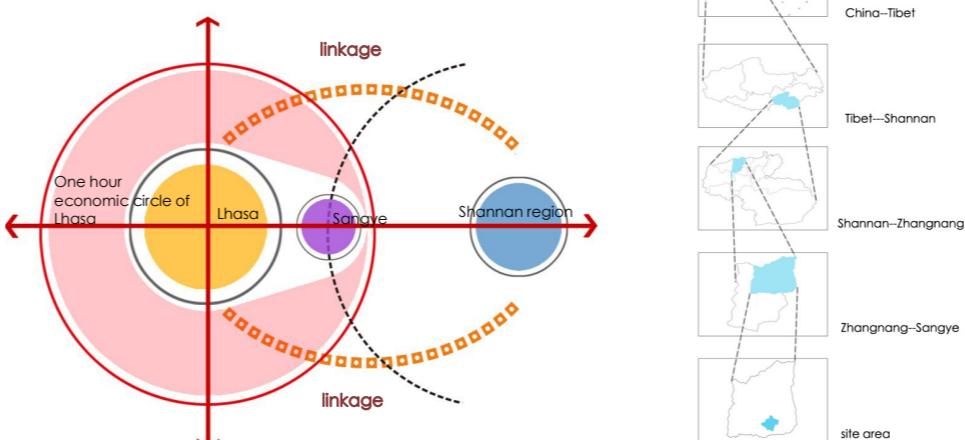
In early 2015, the Tibet autonomous region has released the Tibet autonomous region policy « implement of characteristic mall towns construction», and selectes 20 towns to carry out the construction of characteristics small demonstrationtowns project, and Sangay Town is one of them.



There exist five types tourist attractions in the town and other towns are given priority to with natural scenery. Only Sangye town is famous for its historical and cultural resources, which reflect the Tibetan culture, so its development path will not be the same as other towns. Explore Sangye's own development road is our priority.

1.2 New region situation

Integrate into 1 hour economic circle of Lhasa



1.3 New region pattern

Sangye is an important component in regional tourism in Tibet



2. Religious culture with a long history

2.1 Origin of Tibetan Buddhism



The father of Tibetan Buddhism: Padmasambhava master

In the 8th century, padmasambhava master was invited by akamatsu King to kill the evil,spread Buddhist and establish the Sangye temple.

The sange temple is the representation of the former hong period buddhist temple, Known as the "Tibet's first buddhist temple", and is the origin of Tibetan Buddhism.

2.2 Typical Representative Sangye Temple



Sangye temple completely reconstructed the Tibetan minds to the ideas of temple city.

The layout and model of Sangye temple established a pattern of Tibetan temple architecture and develop into the layout of the mandala type.



3. Zen culture



Green park zen practice:
a place of god with humans, quietly enjoying conversation with the time
and space.

Emma dragon highway:
the road of famous pilgrimage

Traits and problem analysis

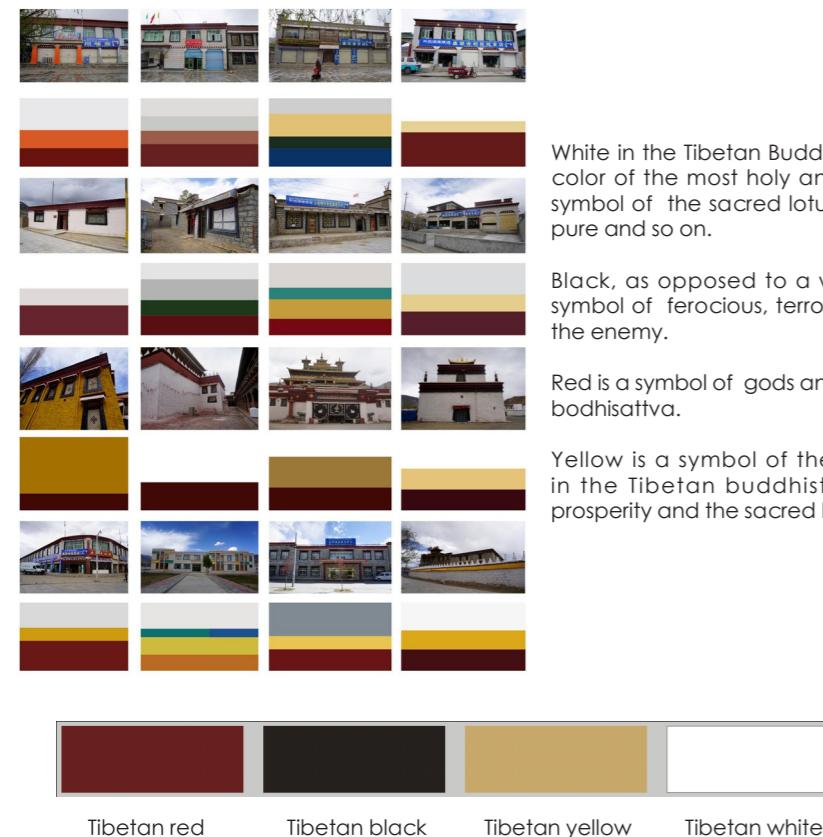
4. Ecological Resources&Mountain Environment



The whole terrain of Sangye town:

Lower south and higher north
North is the undulating mountains and alpine grassland
South is the yarlung zangbo river valley

5. Urban Color



White in the Tibetan Buddhism is the color of the most holy and pure. A symbol of the sacred lotus ,rich life, pure and so on.

Black, as opposed to a white, is a symbol of ferocious, terror and the enemy.

Red is a symbol of gods and manjusri bodhisattva.

Yellow is a symbol of the blessing in the Tibetan buddhist and the prosperity and the sacred heaven.

Inspiration:

Religious culture, zen culture, plateau scenery, building color constitute characteristics of Sangye region, which is unduplicated local characteristics.

Source of the temple, soul casting, tour depending , Sangye town gradually transite from traditional agriculture industry to tourist attractions. Tourism drive development path of characteristic urbanization.

6. Focus question

Focus 1 Cultural heritage - how to preserve and renovate the excellent history and culture in the development of ancient town

Focus 2 Attention to the livelihood - How to ensure the inhabitants benefit from the preservation and renovation of the ancient town

Focus 3 Characteristic development - how to locate, create sangye town charm?

Total:Based on the characteristics of sangye existing, building what kind of sangye is the foothold of urban construction and the essences of urban design. How to build is the focus of the thinking problem.



Function and location planning

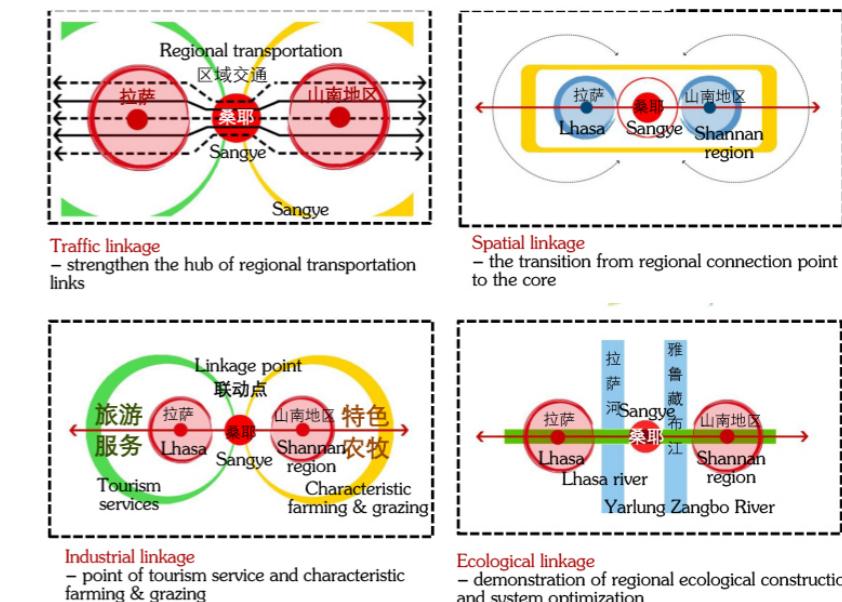
1. Answers of the focus

Answer 1 Highlighting the characteristics of civilization heritage and citing tourist route

Answer 2 Improve the industrial system and create livable environment



Answer 3 Region linkage of the middle Tibet and integrated development with Lhasa



2. Planning concept and development goals

2.1 Concept

Guardian

Reserve peculiar historical features, reappear the charm of Sangye cultural; implementation – see mountain, see water, remember the nostalgia".

Guard – remain an old sangye.

Expectation

Build a new sangye endowed with strong regional characteristics. Explore and design new town space of sangye characteristics .

Expect – build a new sangye.

2.2 Development goals

"Tibetan culture" as the theme, "old samye" as the attraction, "new samye" as the service.

Perfect facilities "living and sharing" & highlight Sangye characteristic urban landscape,

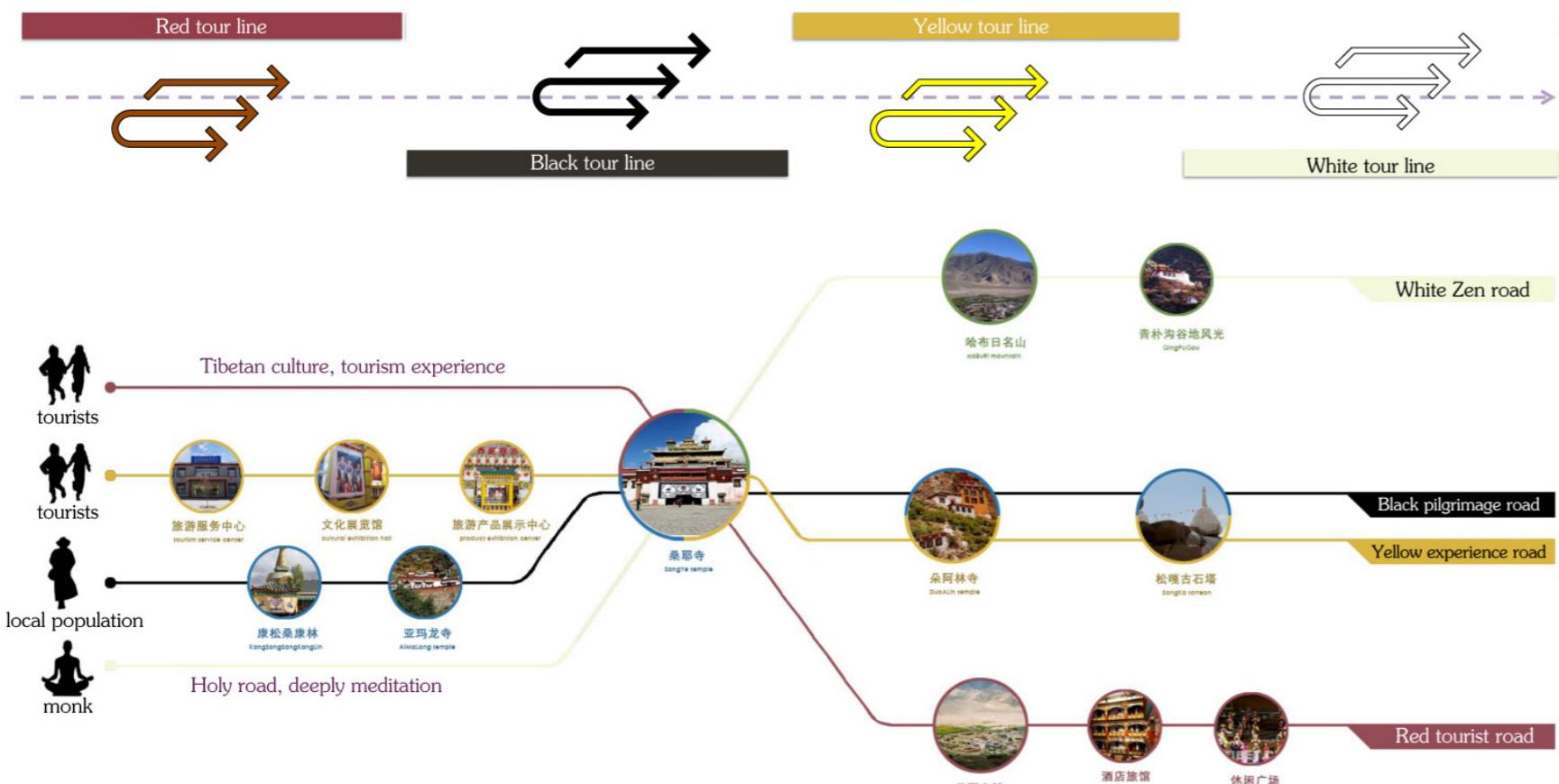
Make sangye reveal features of advanced facilities, best service and reasonable space and beautiful environment of characteristics living demonstration town.

Tourist town + **Zen holy land** + **Livable community**

Function and location planning

3. The function strategy of the urban planning based on scenic spots

3.1 Tour route planning



Red tour line – passion

Theme: culture experience, characteristics landscape

Function: entertainment, shopping, accommodation, catering, leisure

Project planning: culture and entertainment center, sangye big stage and big square, sangye town style block, star hotel, family hotel, road camp, outdoor sports base, rahab park, leisure square, etc



Black tour line – solemn

Theme: travel support project, sangye scenic spot "pole"

Function: pilgrimage, celebration

Project planning: sangye temple, stone tower, allyn temple, Canson SangKangLin, amalekites dragon temple, etc



Yellow tour line – glorious

Theme: reveal tibetan source, feel the feelings of Buddhism

Functions: exhibition, experience

Project planning: sangye, tourist service center, tourism product exhibition center, cultural exhibition hall, loose honk the ancient stone tower, loose card allyn temple ruins, Windsor lacan, etc



White tour line – holy

Theme: quiet ven road, integration of nature and humanity

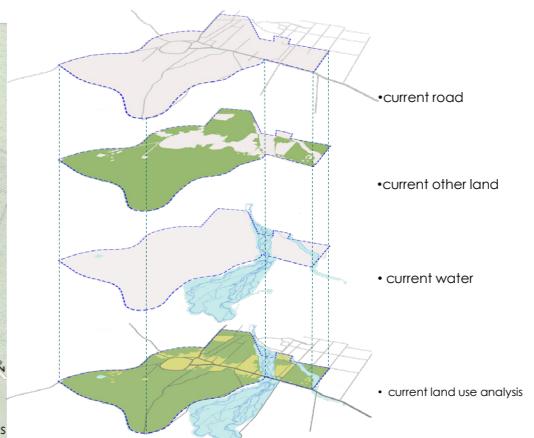
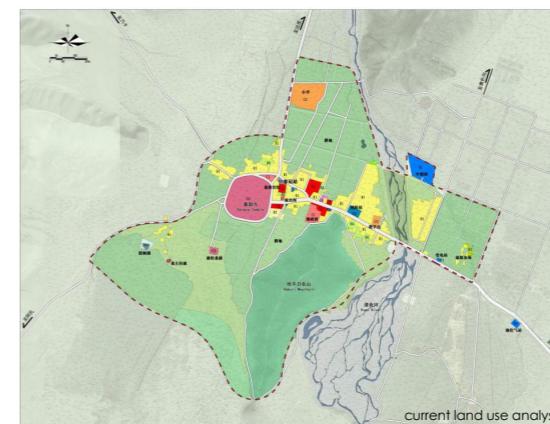
Function: practice and meditation

Project planning: rahab, famous mountains, green park scenery in upland and gully land, Master padmasambhava practice hole, samye card, longevity palace, Lin ling tower, honk Myra, etc



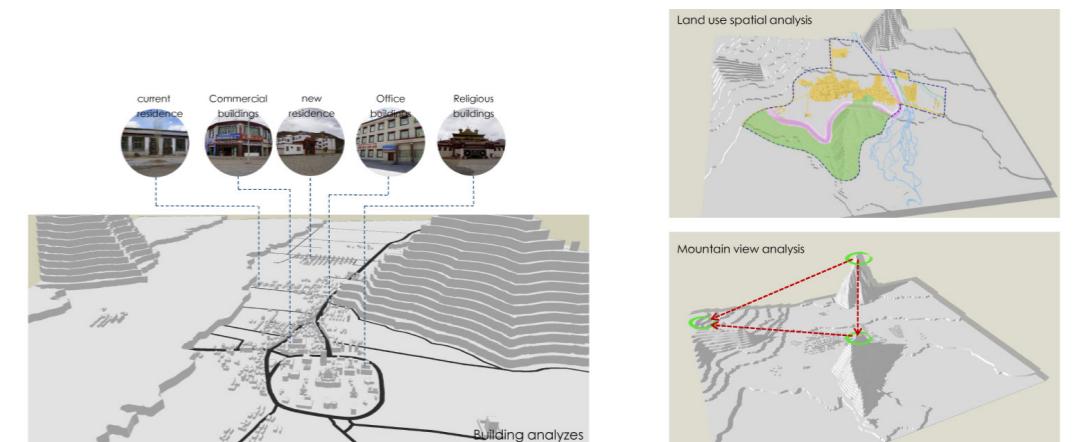
Land layout

1. Land Current Situation

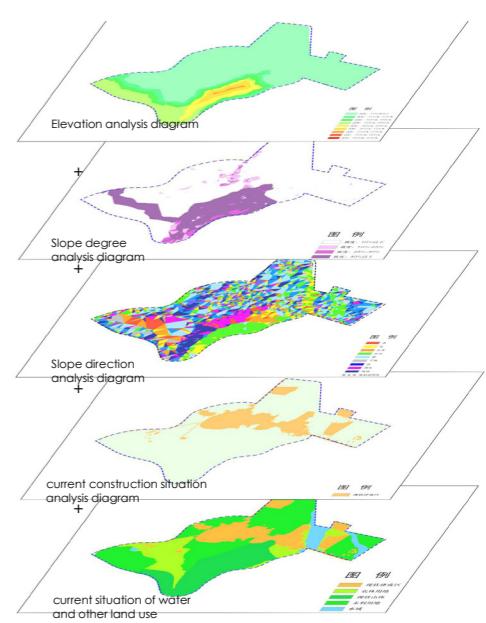
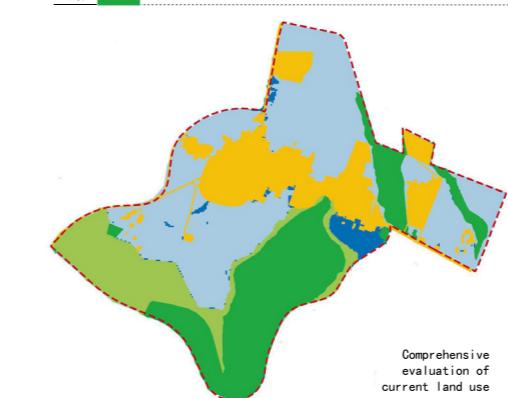


Sangye town belongs to typical temple city spatial pattern characteristics. Sangye town is the main core. Rahab mountains is behind the temple, other buildings around the temple built. Restricted by natural conditions, land use pattern mainly along the jersey road and Emma dragon road fan out.

Space characteristics: "A temple back mountain, a river protecting the whole city".



2. Land use evaluation



Land layout

3. Current spatial configuration

Typical Representative of Temple City — SangYe Temple

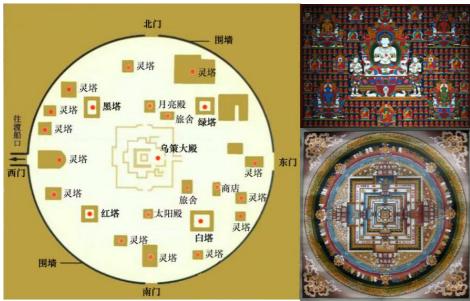
The ancients build Sangye temple to embody the concept of harmony, harmonious coexistence of the whole town.

"Nature and humanity" ecological pattern: the harmony of "Mountain-water-temple-city"

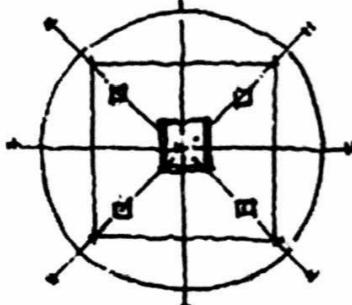


4. Concept of layout

4.1 Three-dimensional and Architectural of Temple City



Principle: "center + edge"



The Vatican (Tibetan) temple symmetrical type

Features: cylindrical inside square outside, Outstanding center, Cross symmetry, radiation surrounding



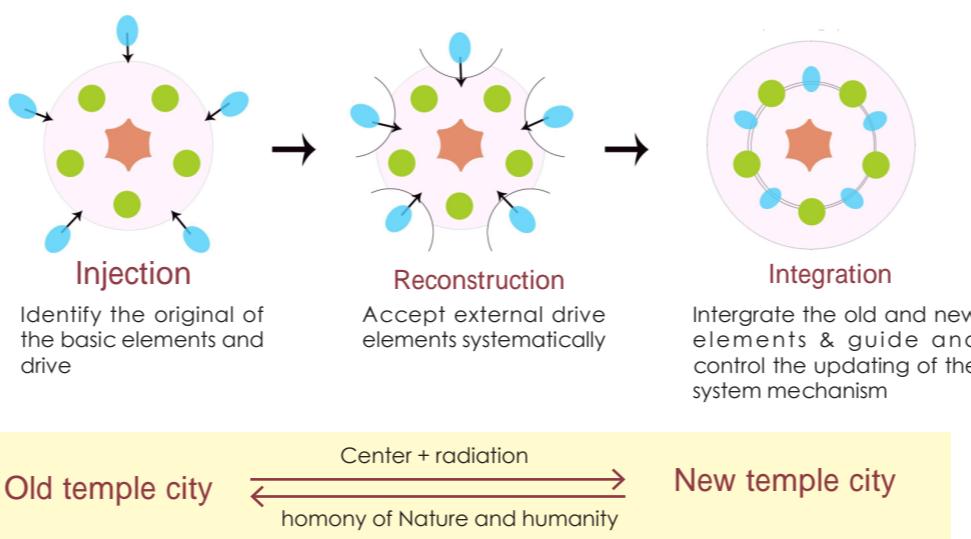
Temple city prototype refining:

The city's space prototype dividing into two abstract factors: the static of the center & dynamic around streamline.

Form the space sequence along the axis, at the same time searching for changes in the order, to form the visual space order, gradually to deepen the respect of people about the temple architecture.

Center symmetry, order contrast: the leading space, transition space, climax space and ending space to form space sequence.

4.2 Mandala spirit of imagery, humanization

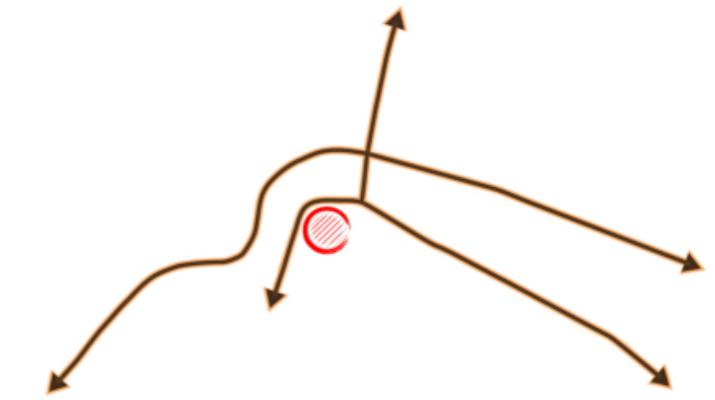


4.3 The trinity of culture-travel-city

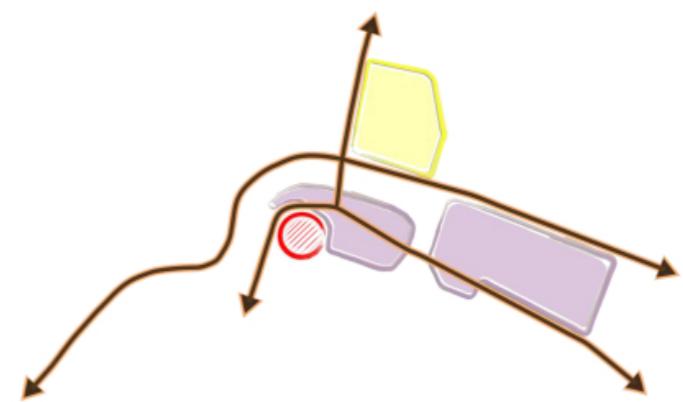


5. Concept of layout

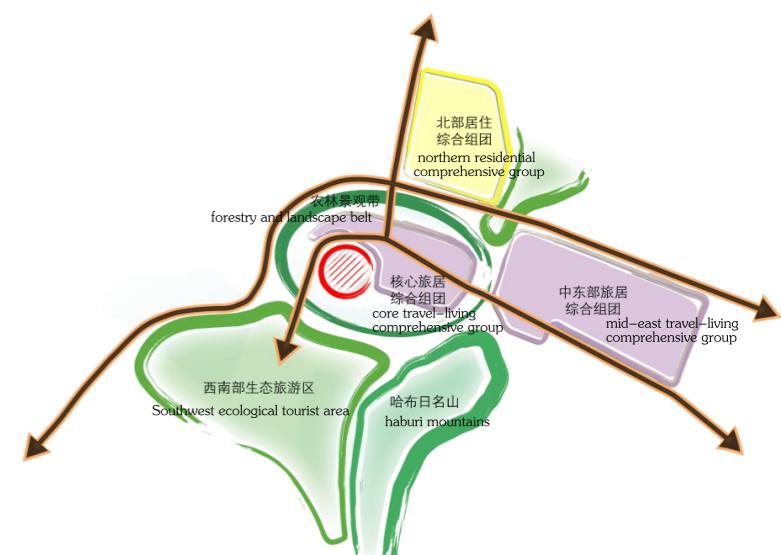
Point shaft driven, functional groups; Temple beltway, green linge



Point shaft driven, mandala layout
 continue the "big temple" space layout, Sangye temple as static center and main traffic axis to form dynamic surrounding streamline



Habitat tour sharing, functional area
 Surrounding the center and the axis, Forming residential groups, tourist groups and living comprehensive functional groups

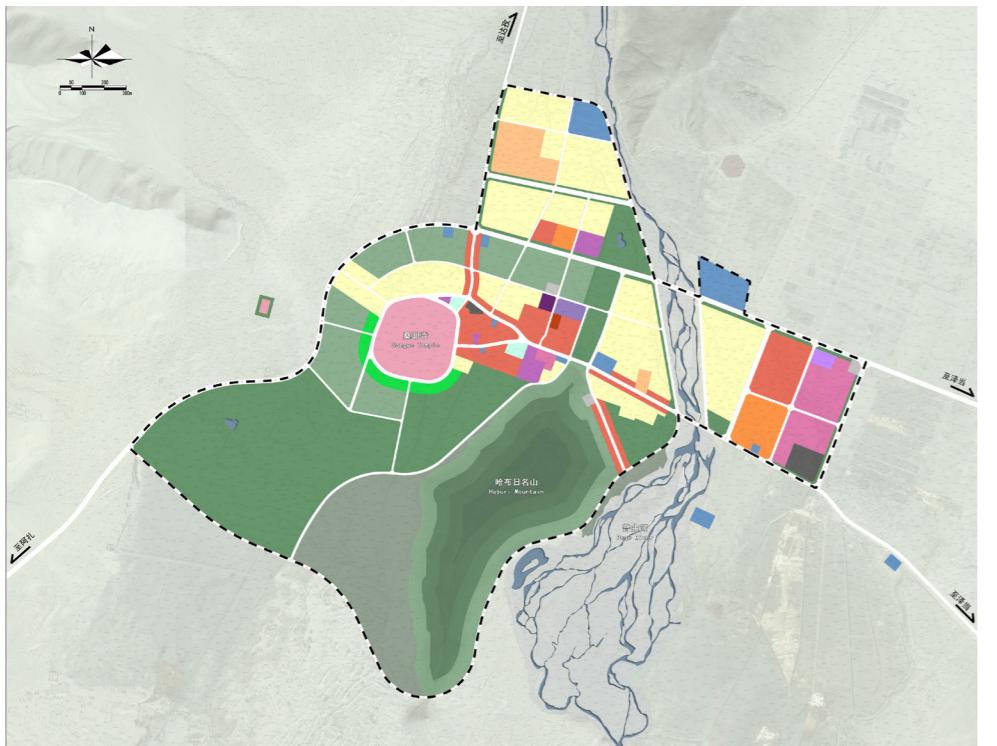


Temple beltway, green linge

Samye centered, combined with functional groups, Along the haburi mountains and peripheral surrounding green belt, forming a spatial pattern of "mountain and temple surrounding city, green haunted"

Land layout

6. Land use planning



Urban design

1. Comprehensive urban design



- ① cuomu lake
- ② Self-drive camp
- ③ Wetland park
- ④ Kang Lin
- ⑤ service center
- ⑥ landscape viewing area
- ⑦ gelimajie
- ⑧ sangye temple
- ⑨ traffic station
- ⑩ sangye hotel
- ⑪ police station
- ⑫ ancient commercial street
- ⑬ town government
- ⑭ tourism service center
- ⑮ ancient residence
- ⑯ business street
- ⑰ parking
- ⑱ welfare house
- ⑲ health-center
- ⑳ sangye hotel
- ㉑ market
- ㉒ characteristic shopping street
- ㉓ center park
- ㉔ Water plants
- ㉕ primary school
- ㉖ planning kindergarten
- ㉗ social security service centre
- ㉘ northern planning village
- ㉙ walking square
- ㉚ community culture place
- ㉛ northern park
- ㉜ current residence renovation
- ㉝ Waterfront forest
- ㉞ Entrance arch
- ㉟ haburi park
- ㉟ haburi mountain
- ㉜ walking scenery path
- ㉞ puqu river
- ㉞ sewage treatment plant
- ㉞ eastern planning residence
- ㉞ telecommunication station
- ㉞ eastern tourism service
- ㉞ sangye big stage
- ㉞ electric station
- ㉞ sangye big square
- ㉞ traffic station
- ㉞ eastern entrance mark landscape
- ㉞ wc

2. Slow system

Safety
Comfort
Continuity



3. Habitat tour spaces

realize "People - town - tourism"
harmonious coexistence.



4. Green space

one circle+ two axis +five areas

one circle:

a protection green belt surrounding Sangye temple.

two axis:

east-west green axis:
depending on both sides of Jiangbei road protection greenland

south-north green axis:
depending on scenic spots (northern park-center park-haburi park-haburi mountain)

five areas:

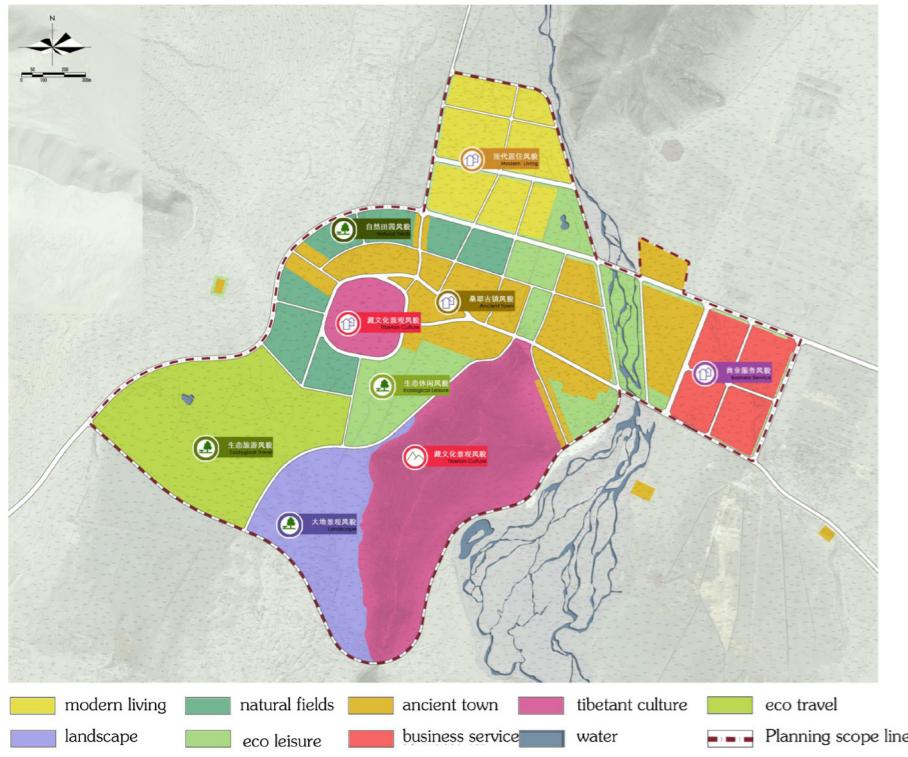
northern park, center park, haburi park, baiguo garden, wetland park.





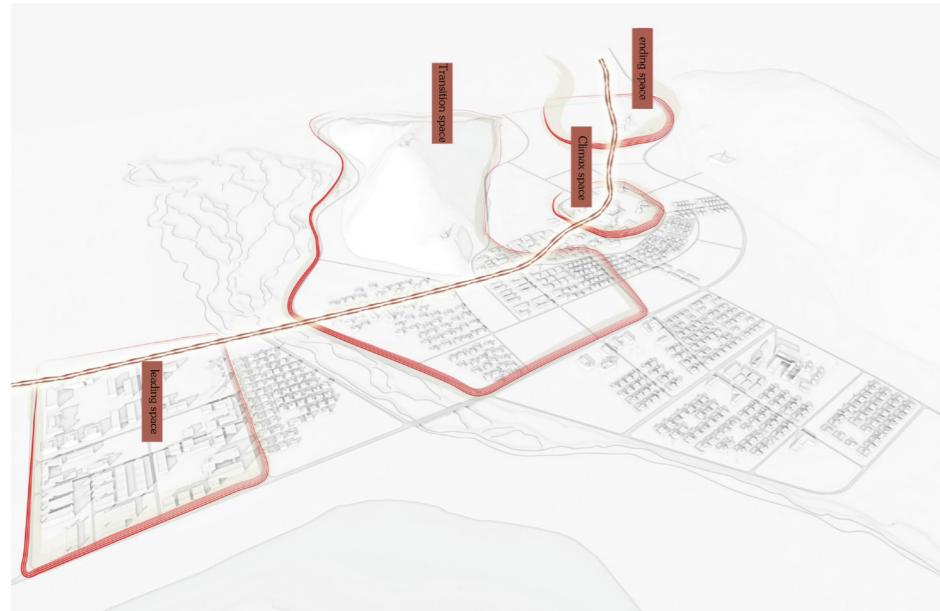
Urban design

5. Landscape style partition



According to the positioning and the overall layout, classify the whole area into 8 landscape districts to make regulations.

6. Spatial sequence

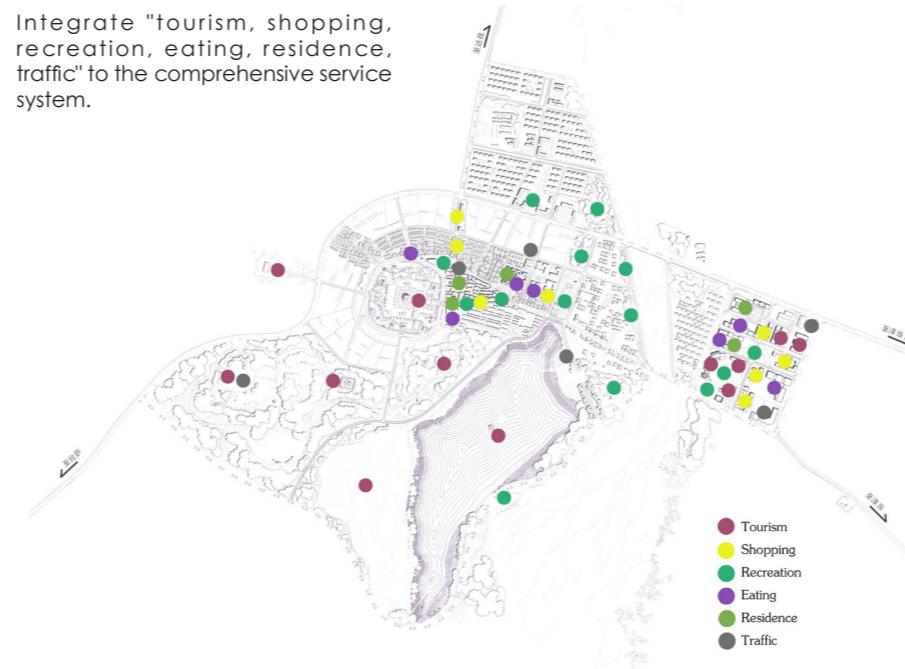


Form the space sequence along the axis , at the same time search for changes in the order, to form the visual space order.
Gradually deepen the respect to the temple architecture .

7. Tourism Spatial Planning

Tourism Integrated Service System

Integrate "tourism, shopping, recreation, eating, residence, traffic" to the comprehensive service system.



Sangye big square aeroview

8. Aeroview

Overall aeroview



Background

M.S. in Urban Planning and Design, School of Architecture and Urban Planning, Huazhong University of Science and Technology, March 2013

B.A. in Urban Planning, School of Mechanical and Architectural Engineering, Jianghan University, June 2010

Employment History

Assistant urban planner and project leader, Hubei Institute of Urban Planning and Design, Mar 2013~ July 2016

Planning and Design Project Experiences

Master plan

Master plan of Northern New City, Baoding

Master plan of Shingle Industrial Park in Heligeer, Huhehaote

Master plan of Zaoyang, Hubei

Master plan of Sangye, Tibet

Master plan of Dongshan, Yunnan

Regulatory plan

Regulatory plan of Logistics Park in the White Tower Airport, Huhehaote

Regulatory plan of New District in Bayan, Huhehaote

Regulatory plan of Shingle Modern Service District in Heligeer, Huhehaote

Regulatory plan of Sangye, Tibet

Regulatory plan of Dongshan, Yunnan

Detailed plan

Detailed plan of Industrial Park in Bayan, Huhehaote

Urban design

Master urban design in Daojiao

Urban design of core district in Daojiao

Urban design of Eastern New District in Suizhou

Urban design of Four-New District in Wuhan

Urban design of small characteristic town in Sangye, Tibet

Urban design of Shingle Modern Service District in Heligeer, Huhehaote

Special plan

Planning of small characteristic town construction in Sangye, Tibet

Urban green space system planning in Daye, Hubei

Urban green space system planning in Shiyan, Hubei

Urban green space system planning in Zhijiang, Hubei

Urban green space system planning in Shayang, Hubei

Master plan of scenic areas in Xishan, Ezhou

Honors and Awards

First-place award in excellent urban and rural planning and design [Series planning of small characteristic town construction in Sangye, Tibet], 2015

Third-place award in excellent urban and rural planning and design [Urban green space system planning (2014-2030) in Daye, Hubei], 2015

Third-place award in excellent urban and rural planning and design [The master plan (2015-2020) in Dongshan, Yunnan], 2015

Honorable prize in original poetry recitation contest, 2015

Outstanding master thesis (included in CNKI), 2013

Merit Student, 2012 ~ 2013

Scholarship, 2010 ~ 2013

Academic Publications

Xing Liu, "Updating strategy research of unit community based on community development," the 10th China Urban Residential Seminar: Sustainable Urban Development and Construction of Affordable Housing, ISBN: 9787112155613, 2013(Projects of the National Social Science Foundation of China--studies for urban community renewal planning based on community development Project label:11BGL100)

Xing Liu, "Research of framework in community updating based on community development," the Proceedings of China's Urban Planning Conference, 2013

Xing Liu, "Updating strategy research of unit community based on community development," Housing Industry, ISSN: 1672-9013, 2013(Projects of the National Social Science Foundation of China--studies for urban community renewal planning based on community development Project label:11BGL100)

Xing Liu, "A discussion of economic housing community in the old district reconstruction," East Asia Institute Proceedings, the 7th Album [Live], ISSN: 1738-3919, 2011

Xing Liu, "Urban design of small towns research under the background of new urbanization," Two-type Society Construction and Urbanization in Central China, the fourth 21st Century Urban Development International Conference Proceedings (Press: The Urban Planning Society of China), ISBN: 978-7-5609-7429-3, 2011

Xing Liu, "Urban design based on the concept of ecology: Taking Daojiao city as an example," The 4th City and Landscape "U + L New Thinking" National Conference, Wuhan, 2010

Project Supported by the National Social Science Foundations

Research topic: New town construction and development strategy - the research of protection, reconstruction in 1-5 roads of Qilou District, Qinzhous

To Be Continued ..

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