

# TIEU NIU 24:RURAL PLANNING IN TIEU NIU VILLAGE GUIDED BY THE 24 SOLAR TERMS UNDER CLIMATE CHANGE



**Country /City** Chengdu,China

**University / School** School of Architecture, Southwest Jiaotong University

**Academic year** Fourth year of undergraduate

**Title of the project** Tieu niu 24:Rural planning in Tieu Niu Village guided by the 24 solar terms under climate change

**Authors** Jun Yang, Tianxin Gu, Chunyang Li, Aiyue Li, Yuanfang Xia



## TECHNICAL DOSSIER

**Title of the project** Tieu niu 24:Rural planning in Tieu Niu Village guided by the 24 solar terms under climate change  
**Authors** Jun Yang, Tianxin Gu, Chunyang Li, Aiyue Li, Yuanfang Xia  
**Title of the course** Landscape architecture planning and design 4-2  
**Academic year** Fourth year of undergraduate  
**Teaching Staff** Qingjuan Yang, Ran Wu, Xiang Li  
**Department / Section / Program of belonging** School of Architecture, Department of Landscape Architecture  
**University / School** School of Architecture, Southwest Jiaotong University



### Written statement, short description of the project in English, no more than 250 words

Climate change is closely related to rural China, which strongly influence local agricultural production. Climate change during the year determines the timing of sowing, cultivation and harvesting, and creates a unique time sequence for the local population.

The "24 solar terms" are a summative time sequence of ancient farming civilisation. They are a system of knowledge formed by ancient ancestors who followed the agricultural seasons, observed the movements of the heavenly bodies and perceived the changing patterns of seasons, climate and weather during a year. During the different solar terms, specific folklore and festival culture was formed.

The project site, Tieu niu Village, is located in Xilai Township on the outskirts of Chengdu, known for its citrus and kiwi cultivation. Today, this village suffers from lagging infrastructure development, uneven industrial development and few job opportunities, leading to a hollowing out of the population and loss of young labour.

This planning project uses the unique natural time sequence as the main line to re-organize and coordinate the production and livelihood of farmers, and to stimulate the vitality of Tieu niu Village with new industries added according to the time sequence. The increase in jobs will re-attract young people back to the area and the tourists attracted will increase the local economy.

For further information

**Máster d'Arquitectura del Paisatge - UPC**

Contact via email at:  
master.paisatge.comunicacio@gmail.com

biennal.paisatge@upc.edu

**Máster d'Arquitectura del Paisatge - UPC**

Sede ETSAB - Universitat Politècnica de Catalunya

Calle Jordi Girona, 15. Edificio Omega 1-3  
08034 Barcelona - Spain

COAC - Colegi oficial d'Arquitectes de Catalunya

Carrer Arcs, 1-3  
08002 Barcelona - Spain

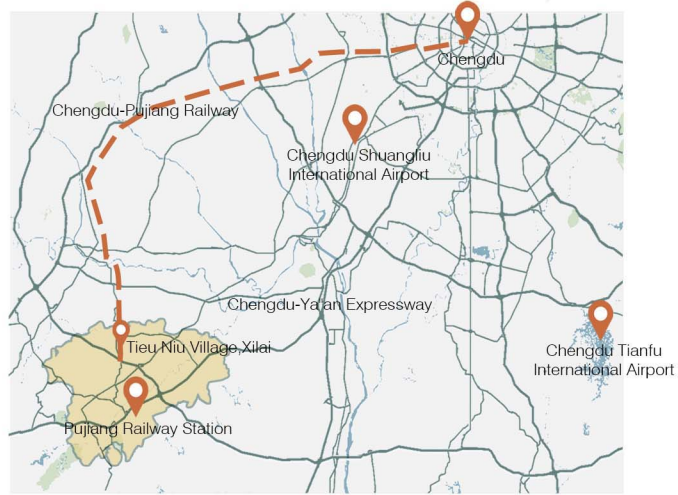
**12th International Biennial Landscape Barcelona**

**Barcelona November 2023**

**SCHOOL PRIZE**



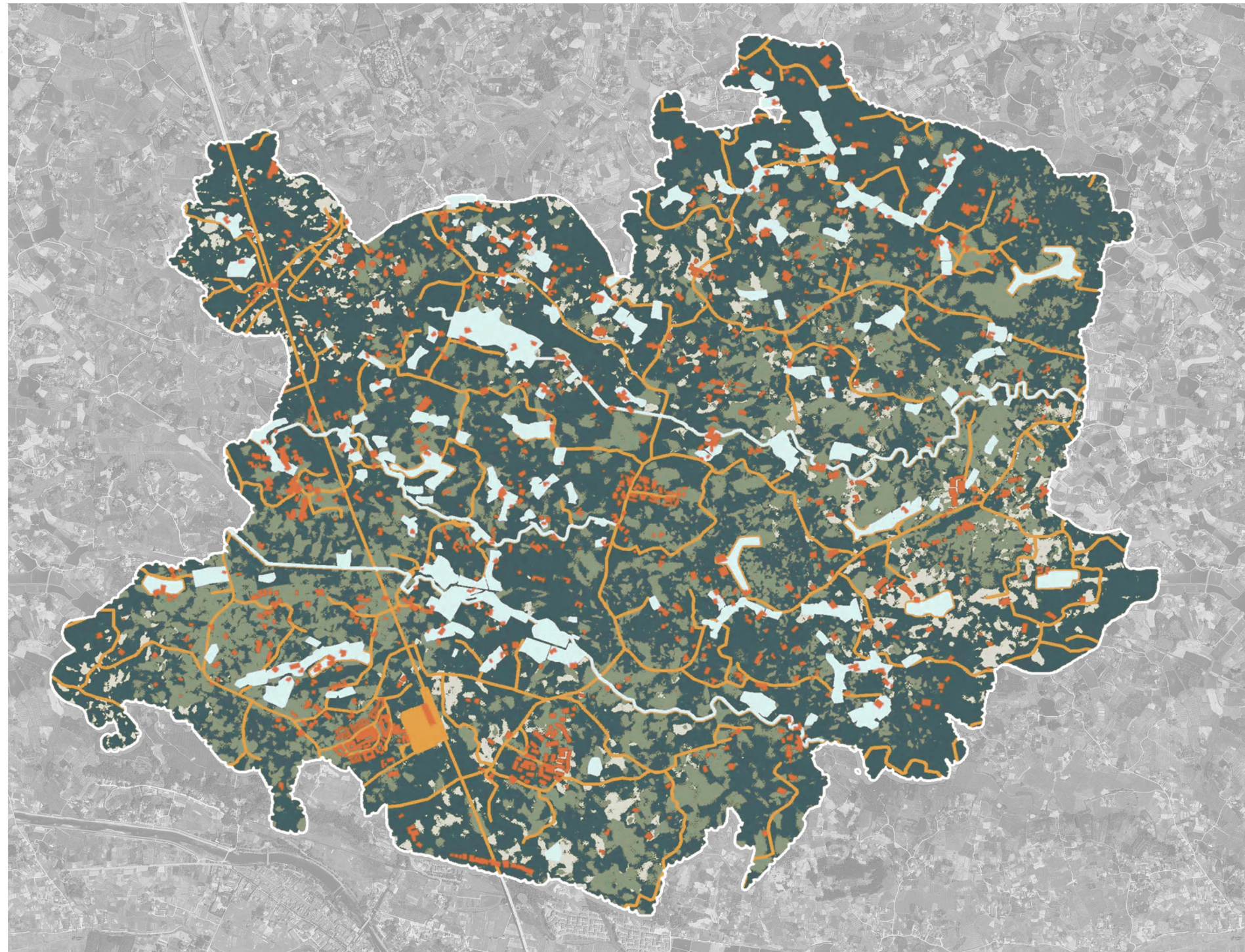
• Location



# PROGRAM

>> Natural environment and rural construction

• Current photos

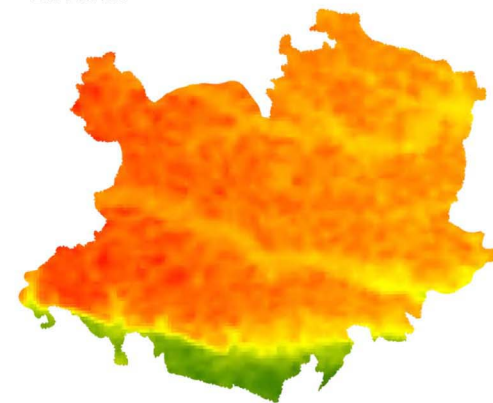


• Landscape pattern

• Illustrations

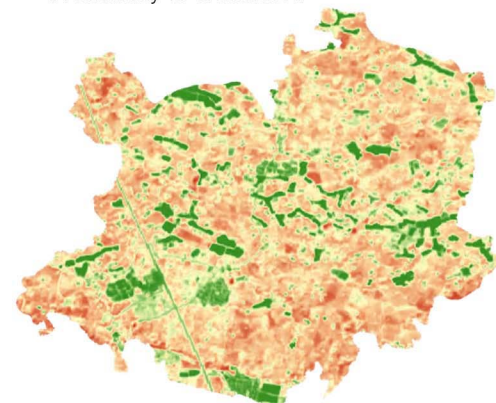
- arable land
- woodland
- water
- buildings
- hardscape

• Elevation



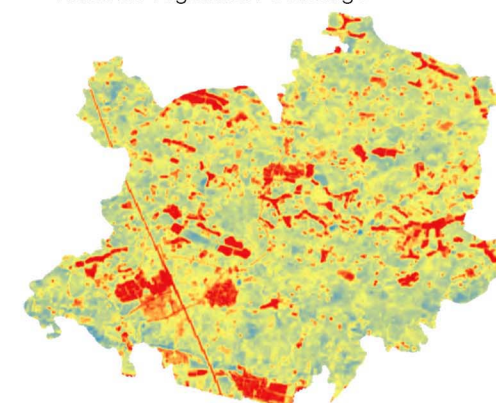
high  low  
The terrain is high in the west and low in the east.

• Probability of inundation



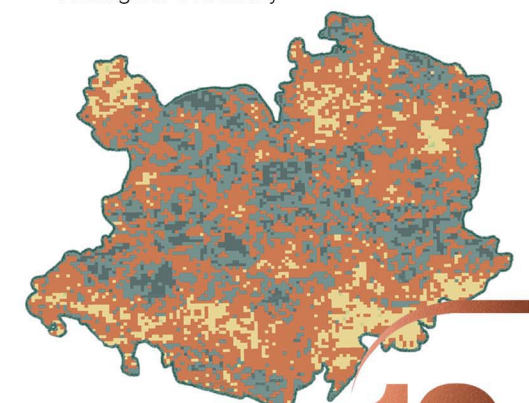
high  low  
The higher the value the more likely it is to be flooded during heavy rainfall or precipitation.

• Fraction Vegetation Coverage



high  low  
The higher the value the greater the vegetation cover.

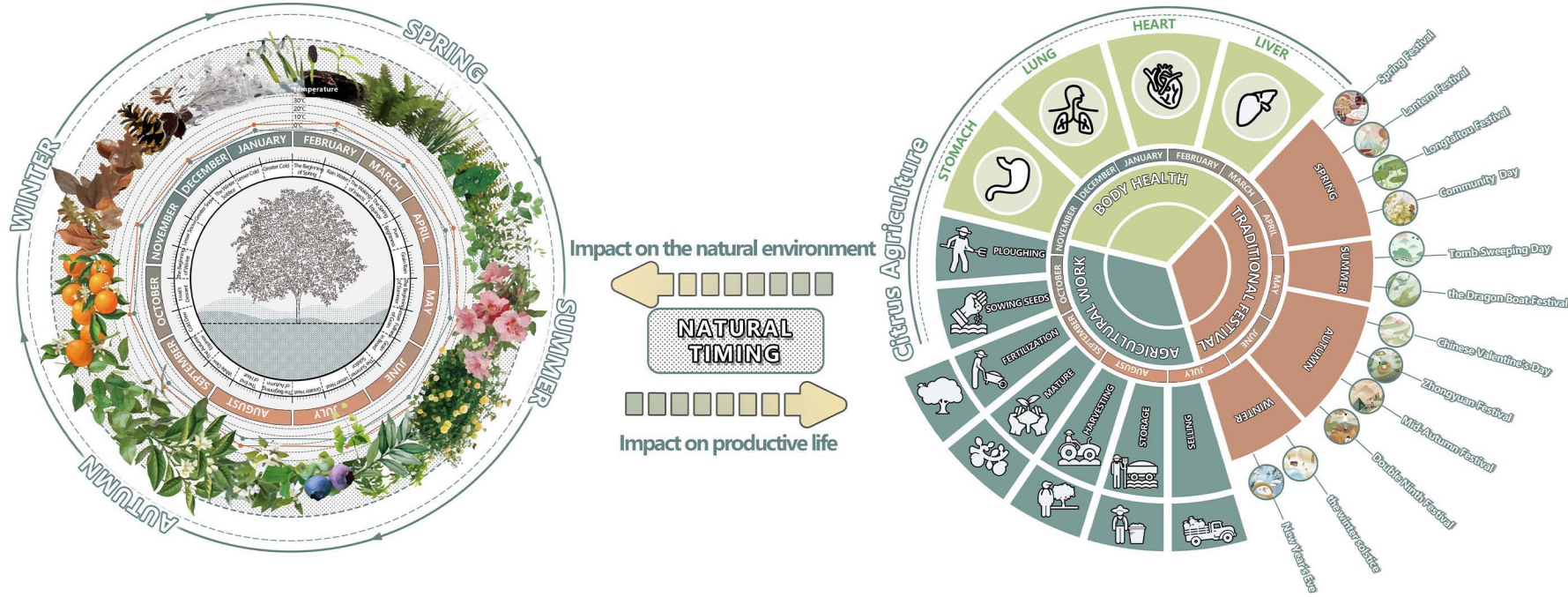
• Ecological Sensitivity



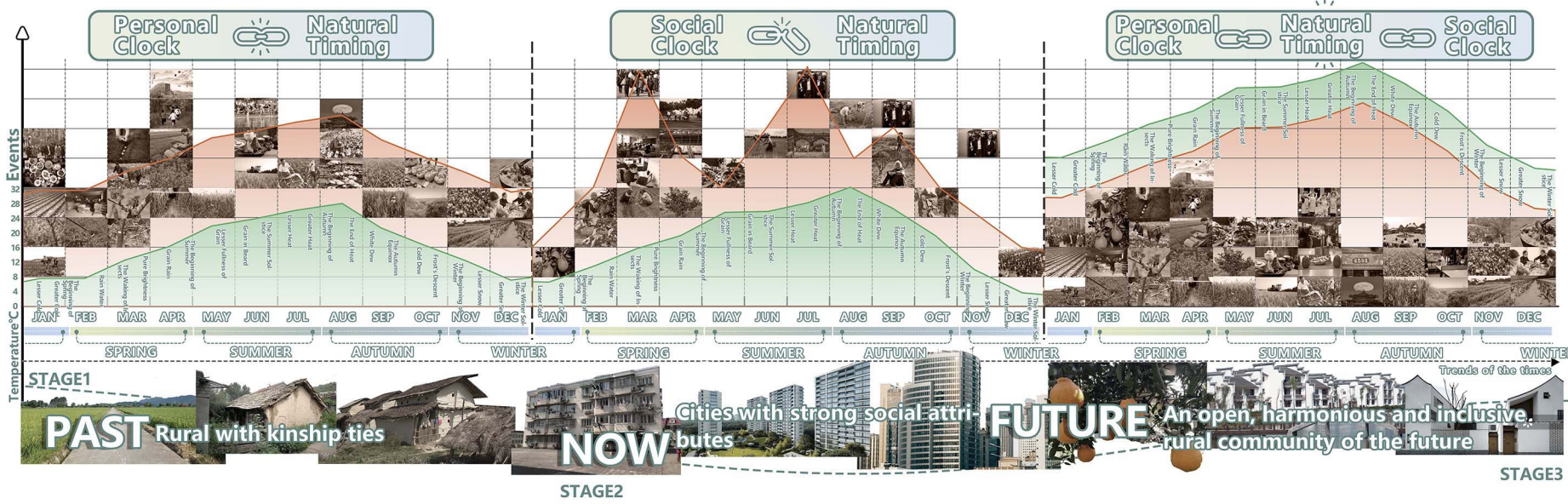
high  low  
The area can withstand a certain amount of human disturbance.



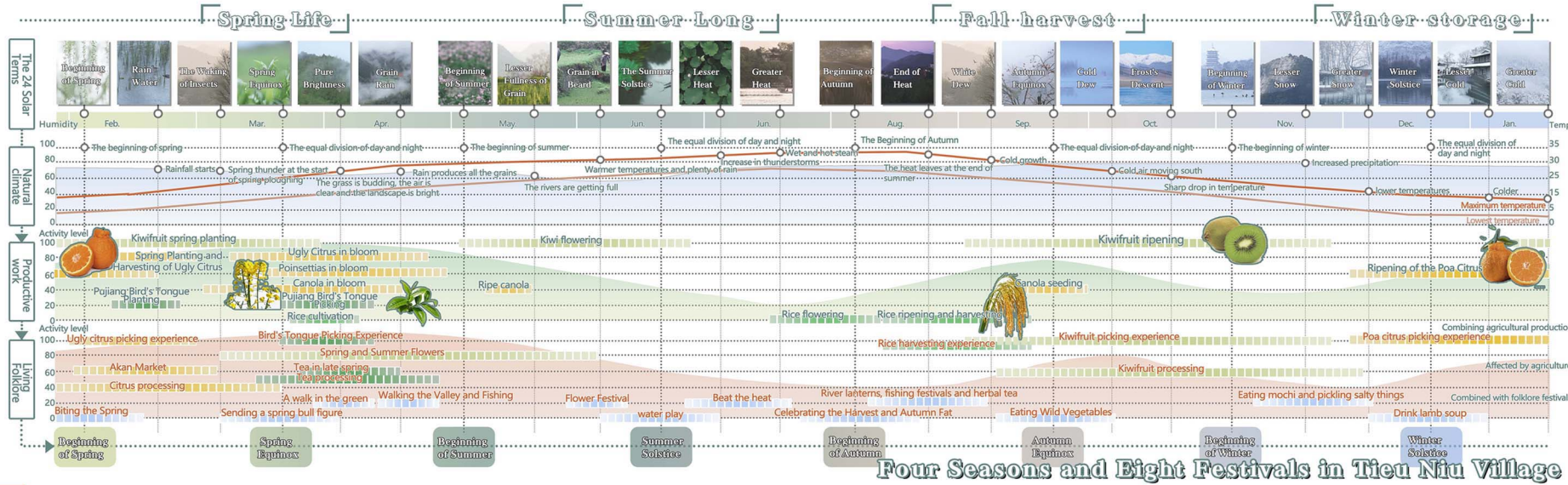
• The impact of natural timing



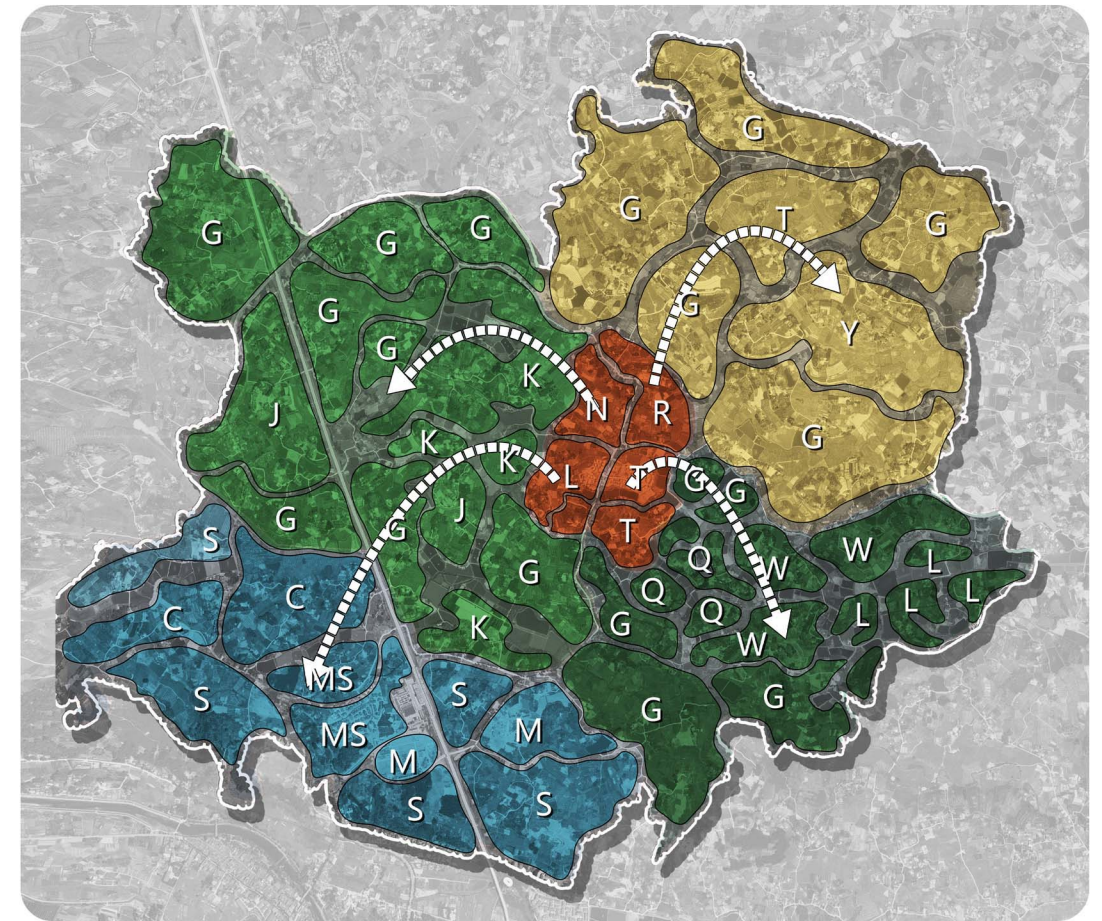
• Social clock vs personal clock



• The impact of the twenty-four solar terms on the industry



• Industrial planning

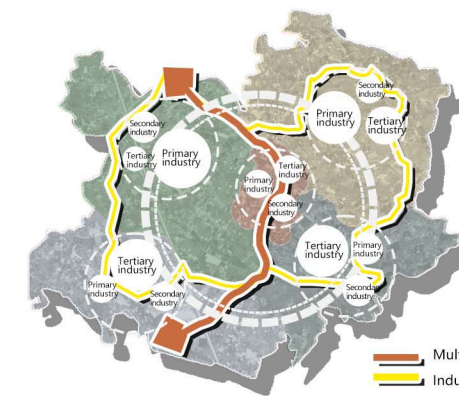


**Industrial Planning and Design:**

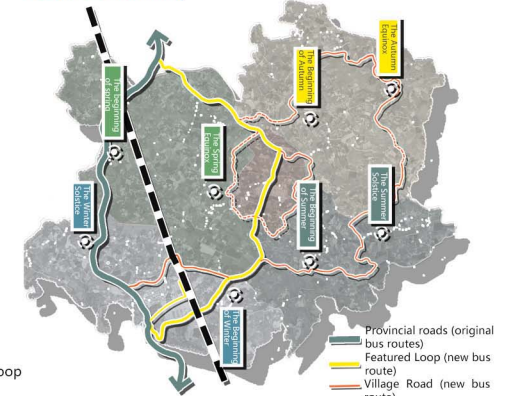
Firstly, different types of industries and industrial structures are planned in the five sub-areas according to the current advantages. Secondly, grouping and further functional and industrial planning of the forested pans within Tieu Niu Village.

- Shared orchards**
- Eco Experience**
- R&D Coordination**
- G** Fruit cultivation
- T** Farming experience
- J** Agro-processing
- Y** Orchard adoption
- G** Agricultural cultivation
- K** Ecological Science
- J** Agricultural products processing
- Leisure and Cultural Tourism**
- G** Agricultural cultivation
- L** Camping and fishing
- Q** Parent-child study
- W** Cultural and Creative Arts
- Wellness Vacation**
- M** B&B farmhouse
- S** Dining Treatments
- F** Forest Recreation
- MS** Folk Market
- N** Demonstration farmland
- R** Talent Park
- L** Forest Pan Accommodation
- T** Cultural and tourism development

**Industrial structure**



**Four Seasons and Eight Seasons Planning**



**PROCESS**

>> From climate change to industrial planning





- one of the Linpan in Chengdu plain in Tieu Niu Village
- ① Secondary entrance
- ② Courtyard pool
- ③ Bamboo Theatre
- ④ patio
- ⑤ Main entrance
- ⑥ Fruit Forest



• section

The Linpan in Chengdu plain is a housing model unique to the local countryside, a complex of production, living and landscape. Taking a Linpan as the smallest unit, it is renovated and designed to restore its residential function and implant new industries in conjunction with climate change.

## VISION

>>From the settlement to one of the Linpan in Chengdu plain

