MENGLUN ECO-CULTURAL DEVELOPMENT AND DAI BUILDING HERITAGE

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Advice Report for XTBG – CAS
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Dear Dr. Chen,

Indeed, it is great news you have been designated as the mayor of Menglun. Answering your request about Menglun development and Dai building heritage, by this advice document I would try to organize some of my thoughts which could be useful.

Of course, a so important topic needs much more participative on site brainstorming sessions for providing efficient guidelines, making good planning and taking right decisions.

For that, first we need to ask ourselves the right strategic questions and to look for the right answers. This is the subject of this document that I have taken the initiative at my own expense. I made it sincerely on the basis on my experience working in different parts of the world and of course in the Menglun region so special to us.

I hope this effort could be useful for Menglun region and “our” Garden I hold in high regard.

Alain Hays

Chief Designer of the XTBG-CAS Scientific Research Center

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**IS MENGULN A SMALL TOWN AS THE OTHER ONE?**

The answer is obviously: No! *Menglun* is the town of the largest botanical garden of China and may be tomorrow of the main tropical garden of the world. It is a fact. So its urban development has to take deeply into account this very special environment which could be for Menglun advantage.

**IS THIS TROPICAL GARDEN A BOTANICAL GARDEN AS THE OTHER ONE?**

No! Unlike the most part of the botanical gardens that were located in the cities, often for showing exotic plants in a urban environment, XTBG is integrated in nature and wilderness which are part of the native environment of Menglun, and on the other hand many of its inhabitants are involved in the Garden which plays an important economic role for the town and surrounding villages.

**IS THE MENGULN’S ENVIRONMENT, TROPICAL RAIN FOREST AND NATIVE BIODIVERSITY, ONLY AN ATTRACTION FOR DOMESTIC AND FOREIGN VISITORS?**

No! first this specific environment is part of the Dai and Akha Hani people life, culture and knowledge, and second, it is an outstanding open-air laboratory for scientific research on tropical plants and biodiversity preservation.
IN THIS SPECIFIC CONTEXT, WHAT IS THE IMPORTANCE OF THE DAI BUILDING HERITAGE?

First, the Dai and Akha Hani villages, which surround the town of Menglun and XTBG should be recognized as a unique building heritage that expresses by five “eco-cultural” topics:

1. Strong cultural values. (“Nature-Culture” thinking and heritage)
2. Deep indigenous knowledge in natural resources management (especially in wood carpentry).
3. Original and exemplary bioclimatic traditional design.
4. Perfect integration into nature.
5. Appropriate scale development for nature preservation.

Second, these five “eco-cultural” topics have to be taken into account for any project of Menglun development, if the Dai (and Akha Hani) building heritage is recognized as a strategic key-element for Menglun and XTBG prospects and harmonious interaction.

EXTENSIVE INDIGENOUS KNOWLEDGE IN TIMBER CONSTRUCTION AND WOOD EXPLOITATION

Dai Building Heritage study. Cheng Zi Village, (Photo A. Hays, 24/01/2006)

Wooden Carpentry built with art. Strong indigenous knowledge of local resources management.

TALKING ABOUT DAI BUILDING HERITAGE IS NECESSARILY TALKING ABOUT WOOD CONSTRUCTION

It is necessary to remind the very important study of this wood building heritage, my old friend Professor Zhu Liangwen has made:

- The houses are admirably adapted not only to the heat and humidity but also well designed against the ravages of floods, moulds due to damp, and most insects.

- So the traditional design retains its popularity and is still holding its own in competition against newly introduced ones from outside the region.
Wooden structure

- The durability of a wooden structure depends, firstly, on the type of wood selected and, secondly, on the manner in which it is seasoned.

- The Dai, as rural folk through millennia, are extremely knowledgeable about the qualities of all the innumerable plants that surround them - far more numerous in variety than in temperate zones and are familiar with the various qualities of timber from the many types of trees that are native to their region. [This is a strong point for ethnobotany and XTBG on-site scientific research, a key bridge between XTBG and local people, especially when we talk about their building heritage conservation and forestry management]

- They have evolved a highly pragmatic and effective method for seasoning the timber extracted manually from the forest.
  - These are toted on the shoulder or dragged hack (or loaded onto bullock carts where the terrain is not too hilly). At the village, they are stacked just off the ground on wooden blocks.
  - Later, they will be weighted down under water in a pond and left to soak for several months, after which they will be cleaned, restacked and left to dry out once more. This process improves the timber’s insect-resistant qualities.
  - The smoke from the hearth which, since, there is no chimney, escapes through the vents between the tiers of roofs, also plays a part in preventing mould or insect damage to the roof timbers and thatch.
  - The trees selected for felling, by axe traditionally but latterly by crosscut saw, will be as close to the village as possible to minimise the labour of transportation. They will have straight trunks and be of types of wood known to be insect--resistant and durable, though easily worked.
  - The time of felling is also considered important. Generally, the latter part of the rainy season, around October, is thought to he best. Once felled, the branches are lopped off and the lumber left to dry out on the spot for two or three months.
  - At the end of the year, they construct sawing platforms or dig sawpits at the site and cut the logs into posts, beams, planks, and so forth.

(source: Prof. Zhu Liangwen)
TANGIBLE AND INTANGIBLE TROPICAL ETHNOBOTANICAL BUILDING HERITAGE

It is enough to read these Prof. Zhu very interesting comments for understanding that the Wooden Building Heritage of the Dai (and Akha Hani) people is an amazing TANGIBLE but also INTANGIBLE Tropical Ethnobotanical Building Heritage! An authentic vernacular patrimony that deserves to be preserved also because it is a lesson of vernacular bioclimatic housing design, energy saving and resources ecological management.

- The **tangible** aspect of this building heritage is of course the “admirably adapted” and original traditional building designs, any visitor can observe.

- The **intangible** aspect of this building heritage is the strong tropical ethnobotanical and building knowledge behind what we are seeing that unfortunately many appear to have forgotten it or are depreciating.

COULD THE DAI BUILDING HERITAGE DISAPPEARED IN FEW YEARS?

Unfortunately, I think yes, it is a serious probability if one or several of the five “eco-cultural” topics are compromised, especially when the urban pressure is expanding at an unprecedented rate.

THE BUILDING HERITAGE ENFORCED DISAPPEARANCE, IS IT THE PRICE TO PAY FOR “MODERNITY” AND BETTER LIVING CONDITIONS?

The answer is much more complex:

If “modernity” is considered as a synonym of “urban way of life”, everything that comes from rural knowledge and patterns will be depreciated by the inhabitants and their local authorities. This phenomenon is not only Chinese. It exists in any part of the world, especially when the urban grows is very fast. This is an unprecedented phenomenon of the XXth and XXIst century: in few years huge century-old or thousand-year-old building heritages (and lands, pieces of nature...) were lost forever or threatened with imminent destruction. In Europe, after the World-War II reconstruction, it has taken some decades for peoples and authorities to realize the importance of the building heritage preservation, not only for keeping an historic record of the past, but also for economic reasons, not only for tourism development but also for territorial attractiveness for different purposes: especially for business, commercial, for all uses and housing attractiveness (in particular in the old well-preserved urban center).

I remind when I was a child, in France, in the sixties, with my parents we liked on Sunday to visit the new “modern” social-housing big projects in the suburbs of the cities. The departments were relatively small but they had large windows and balconies, modern bathrooms and collective heating equipment, they had elevators! (only very few buildings for rich people had this equipment in that time) This architecture, completely new, looked so different and more comfortable than our old traditional buildings or houses. We liked also to visit the new hypermarkets (as “Carrefour”) just for seeing... ! It was as if you visited a futurist world. It seemed extraordinary to have so many think to buy there... It was the dreamed image of modernity and hope of a better life.
What have happen since less than five decades? Nobody would spend a day in his life to visit such “modern” social-housing settlements, they look so uniform and without any soul or charming ambiance (without speaking of social problems because the excessive concentration of people, chronic unemployment and endemic delinquency...). And by now, most of us hate to have to go shopping every week in these overcrowded and boring hypermarkets, but we still go there just by necessity for saving time and because it’s a little cheaper and the small human-scale shops have disappeared.

On the contrary, every day, a lot of people enjoy to go to the old well-preserved or renovated centers of the cities, for shopping, for working, for studying, for fun, for sightseeing or simply strolling around the city discovering its attractions. The cost for buying or renting a department in an old building well located in a preserved center could be very high.

The lesson: “Building heritage” is good for a friendly, smart and sustainable “modernity” and good for business too! In Europe, banks, offices, shopkeepers, investors for retail property, and so on, have been quick to grasp the advantages of the building heritage preservation, and not only in the cities but also in rural areas...

SO TAKE US BACK TO THE OLD DAYS COULD BE A SOLUTION FOR A BETTER LIFE?

The answer is obviously: No! The past is the past, and it doesn’t exist any lost paradise. Most of the time, life was very hard, especially in rural areas. And the nice building heritage, we can still see today, is on one hand the reflect of this hard life in the past.

SO WHY TO TAKE CARE OF A BUILDING HERITAGE THAT REFLECTS THE HARD LIFE OF THE PAST?

Because this building heritage is the valuable result of tremendous efforts for building houses, public buildings, temples and so on. This building heritage is generally the expression of strong folk art, part of a genuine culture, and demonstrating a deep knowledge of local resources: a treasure of skill, experience and knowledge that has be passed on through the generations and run the risk of disappearing in few years. Building heritage is also a “living” historical flashback, part of culture and education.

BUT WOULD IT BE FAIR SOME PEOPLE ARE OBLIGED TO LIVE IN THEIR TRADITIONAL HOUSES OR ANCIENT BUILDINGS WHILE OTHERS ENJOY MORE COMFORT IN MODERN BUILDINGS?

The answer is obviously: No! But often, restoration, well-done improvement or modification of traditional houses or ancient building could be much more convenient, also for more comfort and economy. Generally, affordable modern buildings or houses have smaller living areas, and they are often not so comfortable as they seem, especially in rural or semi-rural areas.

WHY NEW BUILDINGS ARE OFTEN NO SO COMFORTABLE THAN TRADITIONAL ONES?

Because, very often, especially in rural and semi-rural areas, the new constructions are made employing technologies and materials used in urban areas and no more techniques and local materials optimally used for traditional construction. The new buildings layouts try to simulate urban patterns, mainly for a question...
of status and do not pay so much attention to the climatic differences between regions. Orientation, windows sizes and location, roofs’ types and so on are too often completely wrong. Following the regions, it is not rare to find new “modern” houses that are like fridges in cold areas or like overheated greenhouse in tropical areas.

**BUT WHAT IS THE IMPACT OF THESE NEW “PSEUDO-MODERN” BUILDINGS IN A STILL TRADITIONAL RURAL OR SEMI-RURAL AREA?**

The impacts are various and have in most of the case irreversible effects. What we could name the five dangers:

1. **Disaster mitigation**: The worst thing could be a reduced resistance to natural disasters (especially earthquakes and flooding).

2. **Energy wastage**: Another worrying and serious problem is ecological, because the use of more energy resources for heating or cooling the buildings when they are badly designed (by simple copy of layouts and patterns which are not corresponding to the local climate).

3. **Land wastage**: The bad or excessive use of the land, when the new building projects are not “on local scale” and not taking into account the unspoiled landscape, natural slopes, vegetation, biodiversity, water resource management and so on, can affect seriously the natural resources, agricultural capacity and appropriate forestry management.

4. **Loss of natural and cultural heritage**: The quick loss of ancestral indigenous knowledge and technologies (especially carpentry, timber harvesting, and forestry ecological management) can be a loss not only for construction but also for ecology and nature management.

5. **Loss of identity and harmony**: The loss of identity and harmony not only of some individual buildings but of the local communities (villages, towns, landscapes), can affect seriously the attractiveness for foreign or domestic visitors and future investors.

**IN WHAT THESE FIVE DANGERS THREATEN MENGLUN REGION ?**

1. **DISASTER MITIGATION**

Xishuangbanna is a seismic region. Although traditional Dai wooden buildings could be damaged by strong earthquakes or floodings, wood traditional structures were optimized over time according to local people long experience and knowledge. The same is not true with “new” reinforced concrete and bricks or concrete blocks technology imported recently in the region. It is a myth to think that concrete constructions were made without any professional design and calculation. In an attempt to imitate patterns and layouts of foreign urban design, local people were not careful with building codes and adequate seismic codes and standards were not respected. Plenty mistakes
had been made: wrong steel reinforcement, too heavy slabs, defective wall ties, bad concrete mixing or pouring, and so on... Without engineering calculation, skilled labour force and professional monitoring on site, improvised concrete constructions could be very dangerous! Even worse, when local people want to make multi-storey buildings. To provide them architectural plans and blueprints they could make by themselves without any control and monitoring by engineers and architects is a big risk! On the contrary, they know perfectly their traditional wooden building technologies and they know by experience how to minimize risks. This is even truer in rural or remote areas.

SO COULD WE SAY THAT TODAY IT’S EASY TO MAKE SAFER NEW BUILDINGS WITH LOCAL MATERIALS AND TECHNIQUES?

No, it is not so easy! Why ? The answer is not so simple. First for the excessive over-evaluation of everything coming from the urban world in comparison to the systematic devaluation of rural and traditional world, local people think more and more that their traditional building heritage is an image of backward life and poverty when urban construction is symbol of modernity and richness (which is not always the true). It’s mainly a complicated question of status and education.

Another phenomenon has a strong impact. Many construction workers in the cities were peasants and came from rural areas. They work very hard to try to better their life. When they come back to their villages or towns, on one hand many of them (especially young men) do not know, any more, traditional construction technologies and on the other hand local people hope from them they bring to the village the “modernity” they have learned when working in the cities. Some of these workers have been working hard to earn money and perhaps they are something richer than the local inhabitants, quite often they want to show their status, building with technologies from the city. Of course they know concrete, bricks and blocks, they have used it so much for building big urban projects, but they are not engineers and not always they know construction codes and calculation... also they are not so good designers, and the improvised design of their new houses they built with new materials are generally very poor in comparison of the local traditional building heritage which is unfortunately and unfairly depreciated by the same local people and their authorities.

This is a vicious circle that causes in few time the unavoidable loss of the cultural building heritage...

Political and strategic support is needed for taking specific and efficient measures and making good master planning for preservation (and improvement) of this invaluable building heritage and for a promising and exemplary “eco-cultural “development of the region.

Otherwise, it will be too late ...
2. ENERGY WASTAGE

Another problem, the bad design of these new improvised constructions, in most of the cases, they do not take care of the climate. It is not rare to see houses badly oriented, with very large and high windows exposed to sun, insufficient wall shading, no deep roof overhangs and awnings, and so on. This is particularly the case in urban or semi-urban area where people become accustomed to using more and more air-conditioning. A good design could help to minimize air-conditioning for energy saving and to make more comfortable tropical buildings.

Nice integration of new windows. Good improvement of traditional building. Good climatic design for cross ventilation and walls shading.

Bad looking design (and colors...) with huge windows and lack of walls shading: bad climatic design: energy waste for cooling.

3. LAND WASTAGE

It is another risk in case of uncontrolled progressive extension of the town or when some big building projects do not take care about nature and tropical ecosystems preservation. It’s also the case when landscape is strongly modified for visitors or new foreign inhabitants leisure activities without due care and attention about ecosystem and water resources impact. (Ex: huge areas for playing golf, destruction of the rain forest... and so on.)

4. LOSS OF NATURAL AND CULTURAL HERITAGE

The cultures of Dai and Akha Hani people are “nature-culture” ones. The Dai and Akha Hani vernacular architecture is a reflection of this reality. That means, anything strongly modified and their culture will have an impact of the natural environment. And this environment is also the same as that of XTBG...
5. LOSS OF IDENTITY AND HARMONY

Nice authentic Dai village integration into nature. Harmony of roofs and colors. Good example of Dai “Nature-Culture” knowledge and priceless “eco-cultural” environment of XTBG (Photo taken from the top of the XTBG Green Rain Forest, 01/01/2011). Bad Integration. “Chaotic” architectural design for demonstrating status and new richness. As far as using false Greek columns and gold details... (as in the very tasteless “Louis XIV” penthouse of the New York and today sadly notorious “Trump tower”...)

HOW TO PREVENT THE “FIVE DANGERS” AND TAKING ON THE CHALLENGE OF THE “FIVE ECO-CULTURAL TOPICS”

- Having a clear vision and making a well-done global “eco-cultural” master plan

We could make this win-win assumption for XTBG, Menglun and its region:

XTBG is a great opportunity for Menglun and Menglun is a great opportunity for XTBG

In concrete terms, it means that there are strong links and fruitful interaction between XTBG and Menglun development.

TO PROMOTE THE IDEA OF XTBG AND ITS “ECO-CULTURAL” ENVIRONMENT AS A WORLD HERITAGE

This idea was presented in my 26/07/2016 advice report untitled “Xishuangbanna World Botanical and Eco-Cultural Heritage”. This “World Heritage” recognition is not an imperative condition for making a well-done global “Eco-cultural master plan for Menglun region development” but of course, it would be a great advantage for XTBG and Menglun. In any case, this eco-cultural master plan could be useful for a better region development and a good approach for this World recognition.
**“XISHUANGBANNA WORLD BOTANICAL AND ECO-CULTURAL HERITAGE” (EXTRACT1)**

“The “Xishuangbanna Tropical Botanical Garden” is a very special place, unique in the world. A botanical garden connected to the wild nature and deeply linked to the natural and cultural environment is rare.

The Garden by itself could be seen as a true Botanical and “Eco-cultural” World Heritage, built by scientists but in symbiosis with a tropical wild context and rich multicultural region. Many key aspects argue for that and it could be interesting to list, study, and show them carefully.” […]

Thinking in World Heritage, XTBG is very significant making a bridge between the native tropical rain forest environment (which is representative of tropical South-East Asia) and worldwide plants diversity and richness expressed on site by numerous and unique plants collections from many parts of the World: a botanical treasure available to the national and international public, not only for the pleasure of everyone but also for science and education, an real enjoyment which contributes to biodiversity raising awareness and learning.

XTBG is not only a garden for visitors, but also a wonderful “on site” link between indigenous knowledges of plants (ethnobotany), working for their continuity and development, and botanical science. In a way XTBG is at core of a Natural and Cultural World Heritage, creating, contributing and preserving at the same time its own “eco-cultural heritage” for local people and humanity benefit. (A. Hays, 2016)

**IN WHAT THIS WIN-WIN ASSUMPTION COULD OPEN UP NEW AND BROADER HORIZONS ?**

Because for doing a useful “Eco-cultural master plan for Menglun region development”, it’s an opportunity to put all the cards on the table. And XTBG and Menglun region each have good cards to play !

**WHAT COULD BE THE KEY TOPICS OF THIS GLOBAL “ECOCULTURAL MASTER PLAN”**

The key topics of this global “Eco-cultural master plan” and appropriate development vision should be in my opinion: “NATURE” and “CULTURE”. Both topic overlies several subject areas as for example ecocultural tourism (XTBG + Menglun2), nature preservation (XTBG + XU + Menglun), resources management (Menglun + XTBG), sciences (XTBG-CAS), education (XTBG + XU + Menglun Schools + ways of communication, medias, internet), economy (XTBG + XU + Menglun), services (XTBG + XU + Menglun),

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2 Menglun = Menglun town + Menglun region (Dai and Akha Hani villages, cultivated land, forestry activities, tropical rain forest areas, etc.)
Urban and Rural planning, new constructions and building heritage preservation (XTBG$^3$ + XU$^4$ + Mengln), and so on...

**SOME IDEAS AND GUIDELINES**

**CLASSIFIED AND REGISTERED SITES**

In France for example, a “classified sites” politic at national level was established for natural and cultural heritage protection: “The aim of site policy is to preserve sites whose exceptional character justifies protection at national level and whose conservation or preservation is of general artistic, historical, scientific, legendary or scenic interest. Over the decades, this policy has shifted from single sites to large landscapes, from a pure conservation policy to dynamic site management. France has 2,700 classified sites and 4,000 registered sites, ie 4% of the national territory.

Decisions to classify or register are merely a declaration of recognition of the heritage value of the space concerned. They do not include regulations such as nature reserves, but have the effect of triggering specific control procedures on activities likely to affect the property.

**CLASSIFIED SITE**

*In a classified site, any modification of the state or aspect of the site is subject to a special authorization* either from the prefect or the minister in charge of the sites after consultation with the departmental commission prior to the issuance of ordinary authorizations.

**REGISTERED SITE**

*On a registered site, applications for the authorization of works likely to affect the space are submitted to the Architect of Buildings of France which issues a simple notice except for the demolition works which are subject to an assent.* (http://www.developpement-durable.gouv.fr/politique-des-sites)

**Classified Sites** are different than **Nature Reserves**.

**Nature Reserves** make it a priority to protect nature and wilderness while banning local human activities and human settlements, which is a big problem in indigenous areas where native people have legitimately property rights on their land.

**Classified and Registered Sites** are particularly important for the conservation of **Built Heritages and Cultural Landscapes**, especially when these are also considered as **Historical**.

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$^3$ The XTBG Research Center and Residential complex design (Houses and buildings) could be a reference for bioclimatic eco-cultural construction code and guidelines.

$^4$ The project of Xishuangbanna University (XU) could also be an example for new constructions if it took into account our advice and recommendations made in 2010 by our experts group (Dr. Chen, Dr. Hong, W. Paisaran, A. Hays). See the report untitled: “Mekong Garden College” Advice: Xishuangbanna Tropical Botanical Garden – XTBG – Chinese Academy of Sciences – New Xishuangbanna University Building Project, Alain Hays, XTBG, 24/11/2010.
STRATEGIC VISIONS

“Nature reserve” vision
This nature priority preservation vision could be useful for establishing or expending “nature reserves” as buffer zones or protected areas for tropical plants and scientific research (open-air laboratory) in the immediate neighborhood or in the medium distance surroundings of XTBG.

“Eco-cultural” vision
This eco-cultural vision, could be important especially for the socio-economic development of Menglun town and the traditional Dai and Akha Hani villages of the region which deserve to be protected, “classified” or at least “registered”.

(A. Hays diagram)

This two strategic visions in the case of Menglun and XTBG are complementary and are responding to the win-win assumption: “XTBG is a great opportunity for Menglun and Menglun is a great opportunity for XTBG”.

(In particular, this is true if thinking in a possible World Heritage recognition.)

BUT WHAT TYPE OF “ECO-CULTURAL MANAGEMENT” COULD BETTER FIT THE NEEDS OF MENGUN REGION AND XTBG HARMONIOUS DEVELOPMENT?

As you know, for nature conservation they are various ways: Nature Reserves, Protected Areas, National Parks and Nature Parks. In our case, I think that a “Nature Park” in particular a “Regional Nature Park” could be an interesting way to explore.

WHY A “REGIONAL NATURE PARK” STATUS COULD BE INTERESTING FOR MENGUN REGION?

- Regional nature parks are more flexible and not so restrictive than National parks and give more power to local authorities and inhabitants.
- Regional nature parks are territories with a voluntary environmental development model for the benefit of all stakeholders in particular the local inhabitants.
Regional nature parks can include some “nature reserves” or “protected areas”, which could fill well with the ancestral concept of “Holy forest” and untouched nature as an “open-air laboratory” for science and education.

Regional nature parks allow and promote human activities which respect deeply the Natural and Cultural Heritage.

Regional nature parks do not convert local people into a folkloric zoo for tourists. (this is important!)

Regional nature parks are not human museum but participates in nature and culture heritage transmission and public education.

Regional nature parks participates greatly to the local, regional and national economy, in a modern but responsible and sustainable development.

Regional nature parks are not only tourism oriented. Many other activities could be developed but respecting the cultural and natural heritage.

“In France, a Regional Nature Park (RNP) is a territory that have voluntarily chosen a development mode based on the promotion and protection of natural and cultural heritages considered to be rich and fragile. In 2016, 51 regional nature parks, cover 15% of the area of France and about 6% of the population.”

THE FIVE MISSIONS

The Regional Nature Parks NRPs are responsible for implementing actions according to five missions:

1. Develop their territory by protecting it,
2. Protect their territory by promoting it,
3. Make a fruitful land planning and management ,
4. Welcome, inform, and educate visitors about the issues they are addressing,
5. Experiment with new forms of public action and collective action.

"Their main strength lies in their ability to adapt, their skill and their plasticity in the social, spatial, cultural, economic, environmental and institutional changes they have experienced”

(source: https://fr.wikipedia.org/wiki/Parc_naturel_r%C3%A9gional_de_France)
We could say that Regional Nature Parks are participating to an eco-cultural development vision. In case of Menglun, we could name it: “Regional Eco-Cultural Park” or “Regional Nature-Culture Park”. The word “culture” in this case is particularly important and significant as a bridge, because on one hand it connotes the native people nature-based culture and their ethnobotanical knowledge and on the other hand it could be apply also to the botanical knowledge, science and education that promotes XTBG-CAS.

XTBG would be at the core of this Regional Nature-Culture Park: a prime initiative that could also argue for a Cultural and Natural World Heritage recognition.
It is a pleasure to recall here that the starting point of the XTBG Scientific Research Center Project, of which I had the honor to be the Chief Designer, was a careful study of the Dai Building Heritage with my first XTBG “historic” team. It is also because the XTBG director, Dr. Chen Jin had this clear vision I share with him, to value this rich heritage and to translate it in a modern way, we plan what could be one day the research center we dreamed together for XTBG and which was converted today into reality.

Symbolic Illustration of the Dai Building Heritage Study for a Modern Bioclimatic Eco-Cultural Design.


My first XTBG team- from left to right: Sun Hui, Huang Tianping, Li Defei, Alain Hays, Ai Chongrui, and our kind hosts in their nice traditional house.
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