



## Xi Shuang Ban Na

### Jiuzhai Valley National Park

### UNESCO Man & the Biosphere ISO Awards

#### *World Heritage Site*

Jiuzhai Valley National Park is a perfect example of a cultural biosphere. This one merits world applause. You will see multiple waterfalls rushing over travertine and serpentine mountains. They quickly flow into gem-like lakes. The water is crystal clear turquoise colored. The unblemished visibility pulls you down to fifteen feet while your eyes finally settle on the bottom of the lake. It is majestic. It is spiritual. The continuous waterfalls catch your eyes and innermost spirit while the surrounding mountains envelop and squeeze the mineral laden rivers into an elegant turquoise ribbon. Jiuzhai Valley is a one of a kind experience. High energy flows in the water and in the air! Then, the Budhas Fan - the largest travertine waterfall in China...you

will learn that you will have no more worries, your health will be good, and that you will be spiritually protected. After absorbing more of this beautiful and enchanted land you will walk your last three hundred yards to a new to a new tourist bus. Your walk is made easy as your steps fall on a well made corrugated wood pathway that blend into the natural environment. Fully energized and ready for your next adventure-you are off again!

Your bus trip to a preserved ornated decorated Tibetan Village that is thousands of years old commands attention. Then suddenly you are sitting in front of gigantic jade shops. The commercialism section of this cultural biosphere is about to unfold when the bus stops and unleashes the tourist on the jade treasure chest. With your spirit cleaned and you have received verification that all is well...you are ready to start spending money! Now everyone wants a piece of the mountain!

After shopping the tourist are ready to settle down to a pre-paid authentic Tibetan dinner and entertainment. Then, for a price, a professional Tibetan group entertains you with a first class stage performance!

Jiuzhai Valley National Park is a very good model for the implementation of a Copper Canyon Biosphere for the following reasons:

- 1) The delicate ecosystem is protected.
- 2) A culture is preserved with flexibility provided which will help train and facilitate the assimilation of those individuals that want to move into mainstream society.
- 3) Commercial space provides education and training and a continued flow of capital for the indigenous population.
- 4) UNESCO SITE:
  - A. Man and the Biosphere
  - B. ISO Awards – 1034 points

## Buddha Fan Waterfall

The area of it is nearly 600 square meters, and the elevation is 3156 meters. The waterfall and water are serpentine and circuitous, like an enormous outspreading Buddha's fan. It is said that once people reach to this waterfall, they will drop all of his worry and disturbance, and the mental and the mood will be suddenly enlightened.

（丰期流量 $14.85\text{m}^3/\text{s}$ ）流经此处，带来大量的 $\text{CaCO}_3$ 沉积，使瀑坎加固加高，成为九寨沟规模最大、最壮观的钙华瀑布。夏秋季节，瀑水倾泻而下，被瀑堤灌丛分割成很多水束，象条条洁白的哈达欢迎远方的客人；入冬后，诺日朗瀑布玉琢冰雕，别有一番风姿。

The largest travertine waterfall in Jiuzhaigou at 2,365 meters above sea level and running 320 meters in width. Formed along a North-West fracture in the earth, (a fault scarp) the ridge of the scarp built up glacial and river sands during the Quaternary Period.  $\text{CaCO}_3$  sediments in surface and underground flow from Rize valley continue to consolidate and heighten the embankment. The waterfall freezes in Winter becoming a spectacular ice sculpture.







你 世 界 第 一 均 干 流 雪 聚 。

### Zhaga Waterfall

The waterfall has an elevation of 3166-3270 meters, and it is 104 meters high, 35-40 meters wide. It is a liquid and solid calcified waterfall. The current surges down from the calc-sinter platform at the speed of 23 cubic meters per second. And it can be regarded as "The biggest tufa waterfall in the world" because of its boundless vigor and spectacularity.





## **Xi Shuang Ban Na**

Bordered by the countries of Myanmar and Laos and nestled into a small extended finger of the giant country of China lies another World Class Cultural Biosphere-Xi Shaung Ban Na. it is located in the providence of Yunnan and near the city of Jinghong. This lush- green jungle environment is enough to take your breath away! Its giant trees put you in touch with our living earth especially when you are looking down while keeping your balance on a hand tied rope bridge high in the foliage.

Of course this is part of the commercial space of Xi Shaung Ban Na. But, before you realize that fact, your path leads you right into a bunch of beautiful girls who walk right up to you, hug you, and then edge you right into a native dance while a “tree house” dweller swings on his Tarzan-like rope from one house to another. Next you will tour some of the long houses filled with authentic utilitarian wares.

Their long houses are very well built and big enough for a large extended family. An array of artifacts gives you a feeling that you are walking in the mists of a primitive culture. However, the indigenous people are so happy and extremely gregarious! Their jungle stage performance is professional. It takes you back in time while your mind and body, absorbs this living primitive culture while you are dancing to music that is hundreds of years old. When you walk is over you fully realize that you have had a rare opportunity to penetrate a verdant rich tropical forest. Your sense of humanity is also illuminated by an accomplished sensation that all peoples of the worlds have more in common than they have differences.

Xi Shuang Ban Na cultural biosphere is another fine example for Copper Canyon to follow for the following reasons:

- 1) A rich green tropical forest full of juicy succulent plants is protected. This is a delicate ecosystem and a world class site.
- 2) Another culture is preserved and growing. The people are able to hold on to their religion, rituals, and a unique way of life. Something of value has been preserved.
- 3) An expanded commercial area pulls regular revenue into their economic system. This commercial department exists in the park itself and on the outskirts where the visitors enter and exit the park.
- 4) It is quite obvious that there “primitive people” are receiving the training to assimilate should they so desire. They are not a captive to a bio-bubble. However, one might ask the question “will they be happier if they choose to enter the main-stream?”

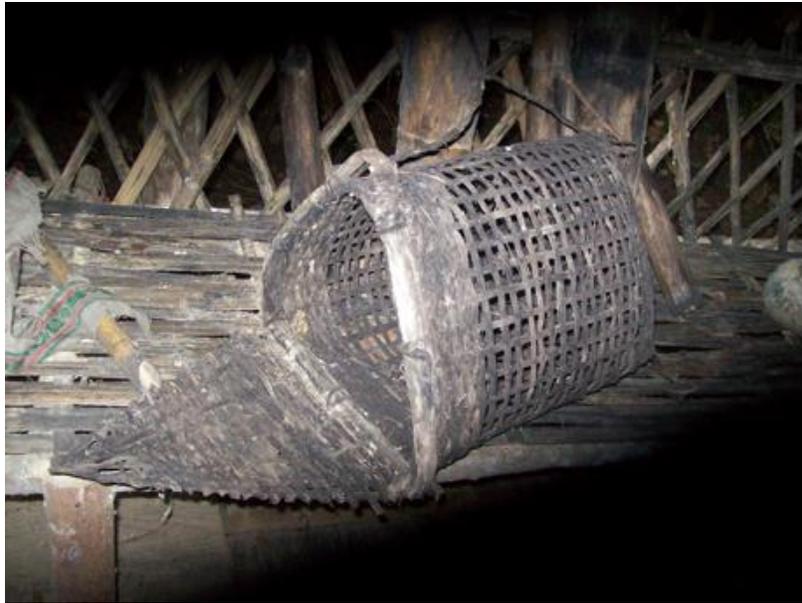
## The Rain-forest in XiShuangBanNa

Rainforests are hot, wet, and multilayered forest cover in tropical areas. The rain fall is heavy and there is no dry season. The covers is mainly composed of tall, big and straight trees with irregular-shaped canopies and aerial and prop roots. Usually rain forest house a great Variety of plants including fast growers like lianas and phyto—parasites. If you go into a rain forest, you'll find that many ancient trees can send out flowers and bear fruit on their trunks and that in time banyan trees can choke out their host plants and replace them, the Rainforest in XiShuangBanNa is full of many types of plants. The rainforest is mainly distributed in the valleys between the local mountain and hills hence the name of the valley Rainforest. These Rainforests, like others, are rich in wildlife resources, which makes XiShuangBanNa the most biodiverse location in china. XiShuangBanNa has 3,500 higher plants which is 12 percent of the plants found in china and 33 percent of the plants found in Yunna. More than 50 rare plants are on the verge of extinction. Fortunately, they have been given special protection by the state. The Rainforest in XiShuangBanNa especially The XiShuangBanNa primeval Forest park is known as the best of its kind south of the Tropic of Cancer. Not only does it set off the beauty of XiShangBanNa. But also creates special woodland scenery in china.



























**Personal Notes from the Book**

## **The Dongba Culture of the Naxi**

### **Published in China**

#### I. The Dongba Culture

- a. Last living pictographic writing in the world.
  - i. Naxi Pictographs
  - ii. Donga scriptures, the “encyclopedia” of Naxi ancient society.
- b. Rituals preserved- ancient unique culture preserved (world famous).

#### II. Naxi Nationality

- a. Ancient name: “Muoxie”
- b. Descendants of Digiang Tribe
- c. Population: 280,000
- d. Location:
  - i. Yunnan-boundary (Lijang)
  - ii. Tibetan provinces
- e. Religion: 1,000+ years old
  - i. Ancestor worship
  - ii. Animistic worship
  - iii. Some influence of Tibetan and Han people.
  - iv. Preserved through pictographs
  - v. “Sage”: priest on shaman of Naxi primitive society.
  - vi. Dingbashilus- the primitive religious founder.
  - vii. No temple
  - viii. No social Stratum

ix. Dongba

1. Invited to hold varied ceremonies
2. Will accept relevant pay
3. Normal times- practice agriculture.

III. Naxi Pictographs

- a. Called “Sijiulvjiu”
  - i. Means- remark on wood and stone.
  - ii. About 1,400 individual pictographs
  - iii. “Geba”- another syllabic language that is Dongba.

IV. Dongba Scriptures

- a. Known as “Dongbatee”.
- b. Used by Dongba shamen
- c. Scriptures: horizontally long and vertically short.
- d. About 28X9 cm.
- e. Each sentence or paragraph separated with horizontal and vertical lines.
- f. Bamboo pen
- g. Some scriptures in color
- h. 1,000 years ago +
- i. Paper: winter daphne- thick texture
- j. Durable
- k. Easy preservation
- l. More than 20,000 volumes
- m. In 20 countries- for research.

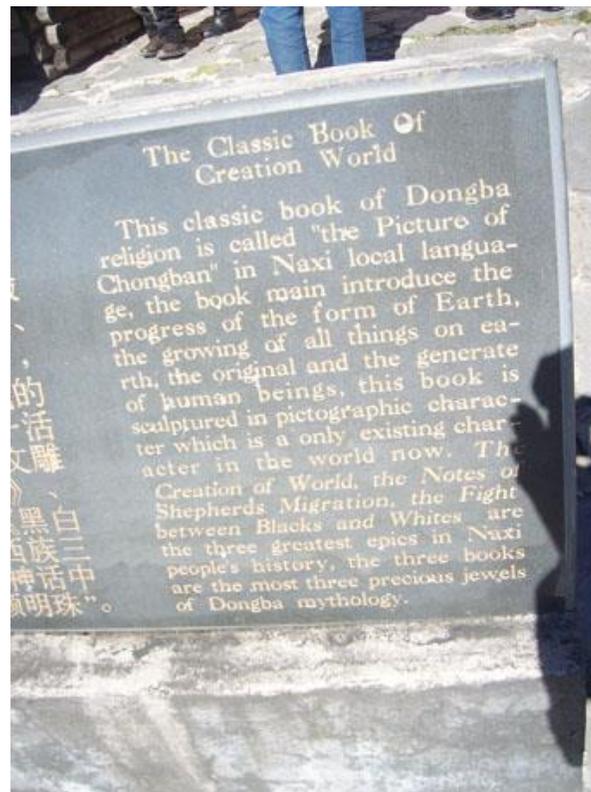
## V. They worship

- a. Heaven
- b. Wandering spirit
- c. The God of nature
- d. Dingbashiluo

With a population of 280,000 the Dongba are not a vanishing culture. They are a protected culture with a wonderful museum located in Lijang, Yunnan province.

This museum quickly educates the unaware tourists. Then, the tourist is ready to experience the Dongba culture and walk the road to heaven (see photos).

When you plunge into this primitive culture you will find that you are overwhelmed with information and detailed spiritual knowledge that requires more than a day or two to comprehend. Just looking at their rustic log houses and their “primitive” rituals might be a great deception because their recorded pictographic history has been passed on for over 25 generations. See photos of the last living pictographic writing in the world.









## **Personal Notes from the Book**

### **Mapping Human History**

**By Steven Olson**

#### **I. DNA**

- a. Complex molecule
- b. Transmits genetic information from one gene to the other.
- c. To 4 million years ago
- d. 7,500 generations ago
  - i. Emergence of modern humans on the Savannas of East Africa.
- e. Everyone
  - i. Descended from one woman.
  - ii. From Africa
  - iii. 150,000 years ago.

## II. Bushmen-oldest H. S

- a. Perhaps 100,000 years ago.
- b. German SWAF lists
  - i. List: shot 400+ Bushmen
  - ii. Recognized as mammals
  - iii. Considered to be a different kind of primate.
- c. Bushmen-A sub-racing stock- but H.S
- d. Anthropologist- 20<sup>th</sup> C.
  - i. Speculated that the following had evolved from different kinds of species:
    1. Africans
    2. Asians
    3. Europeans
    4. All more highly evolved than others.
- e. Southern Africa today
  - i. A genetic Hodgepodge
    1. Groups descended from:
      - a. Bushmen
      - b. Khoi Khoi
      - c. Farmers
      - d. Herders
      - e. Europeans
      - f. Asians
    2. Few countries- rich legacy- genetic mixing

3. Apartheid- an irony

f. Bushmen

i. Skin color

1. Reddish brown

2. Almost yellow

3. Hair pepper corn-brittle naturally breaks off.

4. Prominent cheek bones.

5. Delicate features.

6. Handsome by today's standards.

7. Distinctive in appearance

8. Geography- i.e. sun

9. Deeply lined- constant exposure.

10. Diets- rich in vegetables.

a. Lean

b. Sinewy physique

11. Microscopic study

a. Cells

i. Top layer= indistinguishable from people anywhere in the world.

ii. Beneath top layer

1. Melanocytes (gives skin its color).

2. Contain larger amounts of eumelanin

a. Darller chain

i. Europeans

ii. Lighter than  
Africans

3. Skin deep differences

g. DNA- deoxyribonucleic acid

i. Consists of four simple building blocks- nucleotides.

1. Adenine

2. Thymine

3. Cytosine

4. Guanine

5. Abbreviated:

a. A

b. T

c. C

d. G

e. Strung together in a chain.

6. 1<sup>st</sup> creatures who could be called human inherited their DNA from  
Creatures that could not be called human.

7. 1<sup>st</sup> mammals got their DNA from reptilian ancestors.

8. DNA is our length to every other creature that has ever lived on  
this planet.

9. Once in every 1,000 nucleotides on the avg. the 2 sequences would  
differ.

a. All humans= exact set of genes- our biological foundation.

b. Sequences- vary= physical uniqueness- homo sapiens.

h. Four most important events in human evolution. Probably all- E. Africa within  
some 500 miles of the equator.

- i. 6 million years ago- African apes split (2 distinct species)
  - 1. One- to human beings
  - 2. Other- to modern chimps
- ii. 4 million+: Bipedalism
  - 1. Manipulate objects
  - 2. Increase visibility
  - 3. Upright: Australopithecus (transition to vertically).
- iii. 2 million years ago: tool making genus: homo
- iv. 100,000-200,000 within the genus homo- different from any previous group
  - 1. Less heavily built
  - 2. More mobile
  - 3. Cognitive flexibility

i. Human Evolution

- i. Not in a straight line
- ii. Lineages- did not survive
- iii. A product of a winnowing process- a trial by extinction.
- iv. About 1.8 million years ago as many as 4 distinct groups of humans and Australopithecus may have shared the same homeland in E. Africa.

III. Evolutionary Process

- a. Species do not change en masse- remain unchanged for long periods of time.
- b. Then quite suddenly a new species evolves
- c. i.e. – The Homo Species Budded off from one of the existing Australopithecus species.

- i. Out competed its predecessors- by 1 million years all Australopithecus were gone.
- d. Genetic hot spots- new variations can emerge.
  - i. Center of the range
  - ii. Population densities=high
  - iii. Rich stores of genetic variations.

#### IV. Homo

- a. Did something the Australopithecus had never done.
- b. They went from Africa into Asia and Europe
- c. 1 million years+ H. Erectus living in the modern day Indonesia
- d. In Europe- Neanderthals survived until 30,000 years ago.

#### V. Mitochondrion Studies

- a. Hundreds scattered through our cells
- b. Break down complex compounds into simple and highly energetic molecule.
  - i. A sort of cellular battery pack.
  - ii. Run many different chemical reactions.
  - iii. Descendants of bacteria that began to live inside other single- celled organisms more than a billion years ago.
- c. Provide plant and animal cells with energy in return for a comfortable place to live.
- d. Mitochondria
  - i. Have their own DNA
    - 1. Circular loop about 16,500 nucleotides long.
    - 2. Each person: trillions of mitochondria.
    - 3. DNA sequence is with rare ex. Identical.

4. DNA sequence is different in individuals.
  5. Only egg cells contribute mitochondria to next generation.
  6. Maternally transmitted
  7. All human mitochondrial DNA sequences that exists in the world today are from a single woman- 6 billion people on Earth today.
  8. Mitochondrial “Eve” ( only DNA from her time to survive.
    - a. All others extinct
    - b. Genetics- coalescence
- e. A coalescence- more likely to occur when a population is small.
- i. DNA coalescences about 150,000 years ago.
  - ii. New generations as variation
  - iii. A few people=ancestors of a large number decedents.
    1. A genetic bottleneck
    2. Isolation=a new set of characteristics
    3. Bottleneck
      - a. 100,000-200,000 years ago.
      - b. At this point perhaps 20,000 people constituted the population from where we all descended.
      - c. 7,500 generations have passed- the blink of an eye in evolution terms.
- f. Bushmen
- i. Not closer to our ancestors than any other-same generation separation.
  - ii. Speculation-antiquity and isolation= window into early history of modern humans.
  - iii. Not fundamentally different from anyone else.

iv. Humans have not changed for 150,000 years.

g. Miscellaneous Notes

i. 3<sup>rd</sup> category of mutations- rarest- benefit an organism by making it most likely to survive and reproduce.

1. As Charles Darwin realized this is the process that has filled the world with such an amazing array of living things.

ii. 20 generations (20 years= gen) ago each of us had a million year ancestors.

iii. Human groups= products of culture- not biology.

h. Bushmen- ancestors

i. Had to be one of the 1<sup>st</sup> groups to become established in Africa (mitochondrial and haplotypes).

i. Miscellaneous Notes.

i. Bantu- means people

1. A linguistic rather than demographic term.

- Panmixia- people choose their mates from throughout a population rather than from distinct groups.
    - Sub groups tend not to form.
  - Mutation= a mistake in the copy of DNA
    - Also- radiation
    - Or, nasty chemical (can garble a section of DNA).
  - Haplotype- distinct mitochondrial sequences.
  - Haplogroup- A group of related haplotypes descended from a single ancestral haplotype.
- Bushmen- one of the earliest distinct populations to appear after the evolution of modern humans; oldest mitochondrial DNA and Haplotypes found anywhere in the world.
- Africa to Asia

- Must pass through the narrow isthmus of the Sinai
- Europeans- one of the youngest populations.
- Burial= 1<sup>st</sup>? – 100,000 years ago.
  - Skhul- small cave.
  - Limestone cliff
  - Body- middle age man
    - In a hole
    - Arms- on top of body
    - In hands- the jaw of a wild boar.
  - Found in 1932
  - Eleven more found- an ancient historic necropolis
  - One of the largest of pre-historic human fossils ever found.
  - Neanderthals (500,000 year European homeland).
  - 30,000 most recent Neanderthals
  - 1980's= two newly developed dating techniques
    - Thermoluminescence
    - Electron spin resonance
  - Neanderthals
    - Living in tabun as early as 200,000 years ago.
    - As recently as 45,000 years ago.
  - New date was from 50,000 years ago to 100,000 years ago- burial.
  - Re-enforced by dates from another cave near Nazareth- Qafzeh.

- These dates represented the earliest modern human fossils ever found outside of Africa.
- Skhul cave- near mountain Carmel in modern day Israel.
- 1856- first Neanderthal fossils found- Dusseldorf Germany.
- Three years Later - Darwin on the Origin of the Species by Means Natural Selection.
- The bishop of Worcester's wife famously exclaimed "Descended from the apes my dear? Let us hope that it is not true but if it is let us pray that it will not become generally known".
- Neanderthal
  - Great Brains
  - No frontal lobes
  - No progress in 100,000 years- same tools 5,000 generations
  - Doomed
- DNA- can be found in fossilized bones.
- Interbreeding- check new info ???
- Tools- fossil record= unchanged for many thousands of years.
  - 100,000-65,000
    - Moved out of Africa
    - Smaller more sophisticated
    - Tools - Advanced
    - Covered their dead with red ocher.
    - Creator of art- never done before.
    - Language? (possibly - limited)
- 65,000 years ago

- Reached Australia (modern man)
  - France and Spain (modern man)
    - Most impressive art work.
- 45,000 years ago
  - Distinct culturally from Neanderthal
  - Tools varied and changeable
  - Perhaps the 1<sup>st</sup> creatures on earth to be driven to knowledge
- Neanderthals
  - 36,000 years ago- chatelperronian culture (no)- it was clearly Neanderthal but- modern tools, beads, ornamental objects.
  - Southeast of Paris
  - Neanderthals copied tools and other objects that gave moderns their advantage. Too late
- 30,000 years ago
  - The future belonged to the new people coming out of Africa.

## **Ch. #5**

- I. 10,000 years ago
  - a. Most important development in human history after the invention of language.  
Agriculture
    - i. Population densities
    - ii. Cities
    - iii. Warfare
    - iv. Nations

v. Mass religions

II. Bands

- a. Hunter- gathers
- b. Egalitarian
- c. Tribes
  - i. A larger unit
  - ii. Endogamy- members usually marry within the tribe.

III. Jericho- one of the largest

- a. Earliest town
- b. 10,000 years ago = next
  - i. Domesticating- livestock
- c. Jericho- wall
  - i. 10' wide x 13' wall x700 yards
  - ii. Moat 30' w. x 10' deep
  - iii. No military fortifications in surrounding area.
  - iv. From flooding?
  - v. An innovation in history
    - 1. More dramatic than warfare
    - 2. People coming together for the common good.
    - 3. Social organization
    - 4. Would lead to worlds 1<sup>st</sup> civilization.

IV. 16,000 years ago

- a. Glaciers retreated

- b. Middle East became warmer and wetter.
- c. Greater social complexity (end of Ice Age).
- d. 56 wild grasses
  - i. 32 in Middle East including:
    - 1. Wheat
    - 2. Barley
- e. Four of the world's most important animals
  - i. Goat
  - ii. Sheep
  - iii. Pig
  - iv. Cow
- f. 1<sup>st</sup> writing systems - new forms of devout world's great religions.

#### V. Right before transition to agriculture

- a. Population= about 6 million
- b. One and one thousandth of what it is today.
- c. By A.D.I- majority of people worldwide relied on domesticated plants and animals.

#### VI. All totals

- a. About 81 billion modern humans have lived on Earth.
- b. For every person alive today about 12 have died.
- c. Afterworld- a crowded place.

#### VII. Sumerians

- a. 3,000 B.C
- b. Cunei form writing

c. Pictographs

i. Became more abstract

VIII. A state= strength through its citizens. i.e. I pledge allegiance to the flag...and to the republic for which it stands..there's no mention of family, or children, or aged relatives or ancestors- just one nation, under God indivisible. It is a small example but it is emblematic of a states need to broaden the allegiance of its people.

IX. About 65,000 years ago a large number of Australian animals became extinct.

a. Hunted down

b. Shift in veg.

c. 62,000 year old skeleton near Lake Mungo- S. Australia.

d. N. Australia- earliest yet known of symbolic thinking petro glyphs

e. Aboriginal people same genetic variants as all other non-Africans.

X. Peking Man

a. China- near Beijing

b. Not of China origin genetically – Chinese paleontologist disagreed until recently

c. Modern humans originated in Africa.

XI. Jomonese

a. Occupied Japan

b. 10,000 years ago

c. 1<sup>st</sup> to invent pottery

d. Mixed with Yayoi 2,300 years ago. Today all Japanese descended from both groups.

e. Human proclivity to interbreed.

