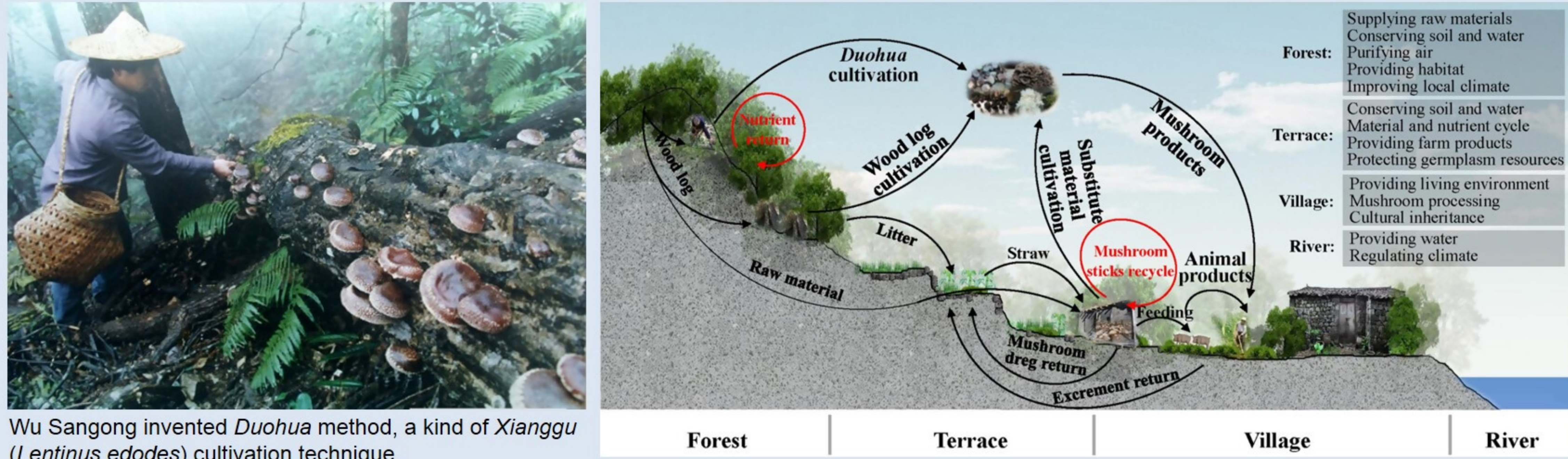


# 全球重要农业文化遗产 中国浙江庆元林-菇共育系统

## 系统概况 Introduction

庆元林-菇共育系统是千百年来庆元菇民合理利用森林资源发展食用菌产业而形成的以森林可持续经营、食用菌产业发展、资源循环利用为核心，包括独特的林-菇共育技术体系、丰富的森林生态文化与香菇文化以及结构合理的生态景观在内的山地林农复合系统。

Qingyuan Forest-Mushroom Co-culture System(QFMCS), formed from the mushroom cultivation through rational use of forest resources by *Gumin* (referring to the farmers who mainly cultivate mushrooms) for thousands of years, is an agroforestry system in high mountainous region, focusing on the sustainable forest management, development of mushroom industry and resource cyclic utilization, including the unique forest and mushroom co-culture technique, rich forest ecological culture and mushroom culture, and the ecological landscape with reasonable structure.



Wu Sangong invented Duohua method, a kind of Xianggu (*Lentinus edodes*) cultivation technique.

## 剥花法香菇栽培技术 Wu Sangong's Duohua cultivation technique

剥花法栽培技术是以剥花为关键的综合技术措施，分为选场、做樁、剥花、遮衣、倡花、开衣、惊蕈、采焙等8道前后相继的工序。剥花法香菇栽培技术填补了人类农业文明发展史上有关真菌孢子栽培的空白。用伐倒木的人工剥口接纳孢子，使其定植、萌发、出菇，整个过程历时两年，还要满足其对光、热、水、气的要求，过程十分严格而复杂，菇民仅凭一把斧头而操控自如，其难度可想而知。

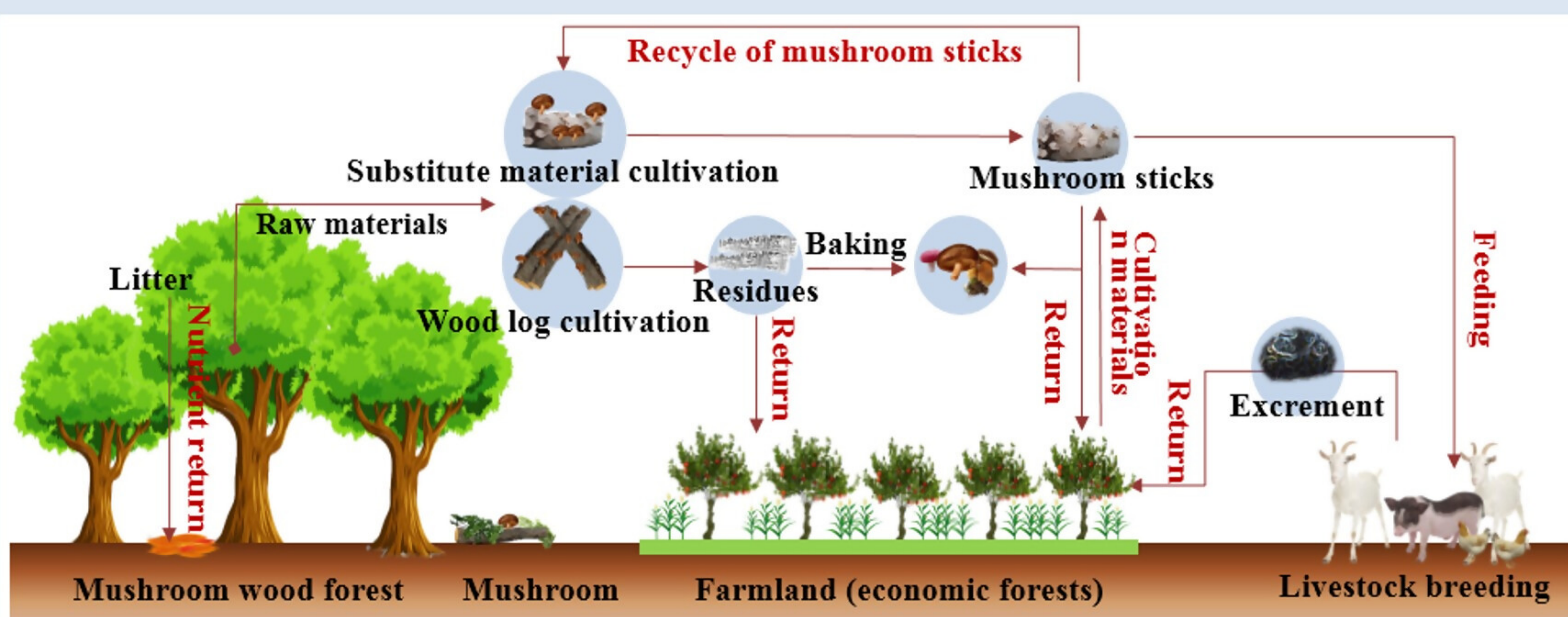
*Duohua* cultivation technique fills the gap of the cultivation of fungal spores in the history of the development of human agricultural civilization. It is necessary to understand the *Duohua* on felled trees to accept spores to colonize, germinate and grow. In order to meet the requirements of light, heat, water and air, the whole process is very strict and complicated, which takes two years. People cultivate *Xianggu* with only an axe but they can control it freely, the difficulty of which can be imagined.



## 和谐共生的生态系统 Harmonious ecosystem

庆元林-菇共育系统具有独特的山地利用方式和创造性的生态循环模式，其最独特的生态价值是实现了生态环境的“零”污染。菇民在生产中合理安排种植业和养殖业，实现了森林采伐剩余物、农田秸秆、菌渣、畜禽粪便等废弃资源的循环利用，形成了丰富多样的循环利用模式，对保护生态环境及促进经济可持续发展具有重要作用。

QFMCS has unique mountain utilization mode and creative ecological cycle mode, and its most unique ecological value is to realize "zero" pollution to the ecological environment. Nutrients and production wastes in the system are recycled in the system over and over again without causing pollution to the ecological environment outside the system, which plays an important role in protecting the ecological environment and promoting sustainable economic development.



# Globally Important Agricultural Heritage System Qingyuan Forest-Mushroom Co-culture System in Zhejiang Province in China

## 异常丰富的菌物资源 Rich fungi resources

遗产地生态系统原真完整，拥有华东地区罕见的万亩阔叶林，是孑遗植物百山祖冷杉的全球唯一分布区，是我国野生大型真菌种质资源重要分布区。目前遗产地共鉴定到大型野生真菌398种，隶属13目61科147属，其中濒危大型真菌2种，特有大型真菌3种，已实现人工培育大型真菌10余种。珍稀植物有百山祖冷杉、华东黄杉、南方铁杉、金钱松、福建柏、白豆杉、银杏、长叶榧等34种。

The heritage site has an original and complete ecosystem, a rare broad-leaved forest of ten thousand mu in East China. It is also the only distribution area of relict plant *Abies beshanzuensis* in the world, an important distribution area of wild macro fungus germplasm resources in China. A total of 398 species of wild macro fungi have been identified in the site, belonging to 13 orders, 61 families and 147 genera. Among them, there are 2 species of endangered macro fungi, and 3 species of endemic macro fungi. More than 10 species of macro fungi have realized artificial cultivation.



## 形式多样的农耕文化 Diverse farming culture

遗产地菇民世代在深山老林中劳作，创造了独特的语言和习俗，编织了大量充满菇乡风情的歌谣、谚语和富有传奇的人物故事，抒发制菇苦乐，反映菇民生产、生活以及与大自然作斗争的情景，衍生出独具地方特色的森林生态文化如拜山神、认树娘、祭风水林等；香菇文化如菇神庙会、菇民香火榜、菇山话、菇民戏、香菇功夫等。

*Gumin* have worked in mountain forests for generations, created a unique language and customs and wrote lots of folk ballads, proverbs, and legendary stories to reflect the bitterness and joy of *Gumin* experienced in the process of cultivating mushroom. All such things have derived a distinctive forest ecological culture such as worshiping *Shanshen* (the god of mountain), acknowledging *Shuniang* (taking a tree as a mother), sacrificing *Fengshui* forest, etc.; and mushroom culture such as *Gushen* Temple Fair, *Gumin* Incense List, *Gushan* Dialect, *Gumin* Opera, *Xianggu* Kungku, etc.



## 丰富多样的产业类型 Rich and diverse industry types

遗产地内多种农业生产方式，形成了包括食用菌、林木、坚果、水果、油料、药材、谷物、薯类、蔬菜和水产品等类型丰富的农产品。其中，除林木和药材以外，其它农产品都可以成为当地人的食物来源。依托丰富的森林资源，遗产地形成了包括农林产品生产、加工、销售以及森林旅游和乡村文化旅游等在内的多种产业类型。

Multiple agricultural production modes within the site have brought a variety of agricultural products including mushrooms, forest trees, nuts, fruits, oil plants, traditional Chinese herbal medicines, cereals, potatoes, vegetables and aquatic products. In addition to forest trees and herbal medicines, all the other agricultural products can be used as food sources for local residents. Relying on rich forest resources, the site has formed a variety of industries including agricultural production, processing and sales, as well as forest and rural cultural tourism.

