

POLITECNICO DI TORINO  
 FIRST SCHOOL OF ARCHITECTURE  
 Master of Science in Eco-efficient Product Design  
*Honors theses*

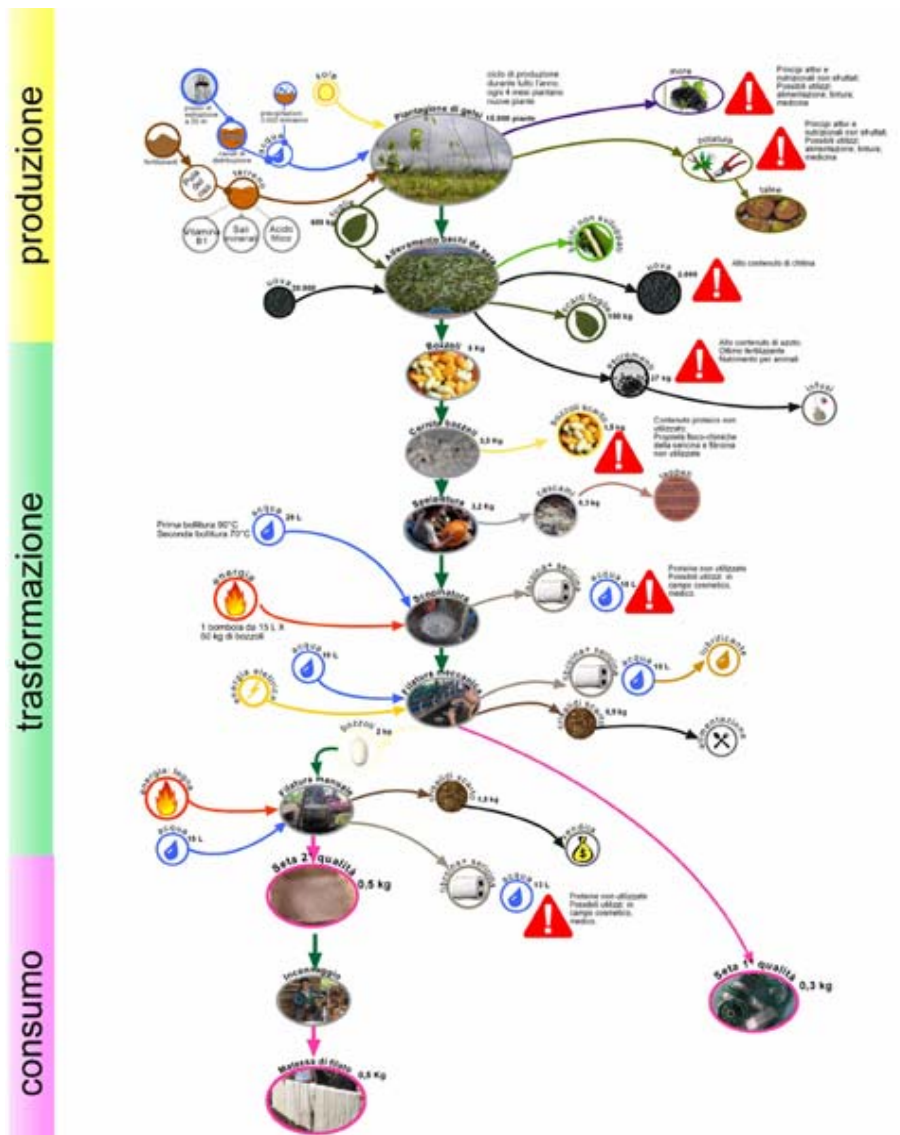
**The silk in Laos: a developing way. Analysis of a project of international cooperation with systemic approach**

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The idea of a thesis focusing on the development of a eco-compatible project on the silk, was born after having participated in a workshop on the Management of Non-profit, given by professor Marcello La Rosa.



Actual chain of silk in Ban Kapeu farm

The workshop intended to set out the principles and ethics of nonprofit using as examples projects in Laos dell'IMG (International Management Group) on the creation of a host pre - and post-natal called Silk Home and SFE (Service d'Entraide Fraternel) on the development of silk production as a source of sustenance of the local population.

We then decided to go personally on the spot to find the necessary information and maintain direct relationships with SFE and Silk Home project team.

The aim of the thesis is to analyze actual processes of production and processing of silk with a specific study on silkworms and mulberry culture coming to create a production system where waste become raw material for other production processes, with the use of energy obtained from renewable sources and natural products.

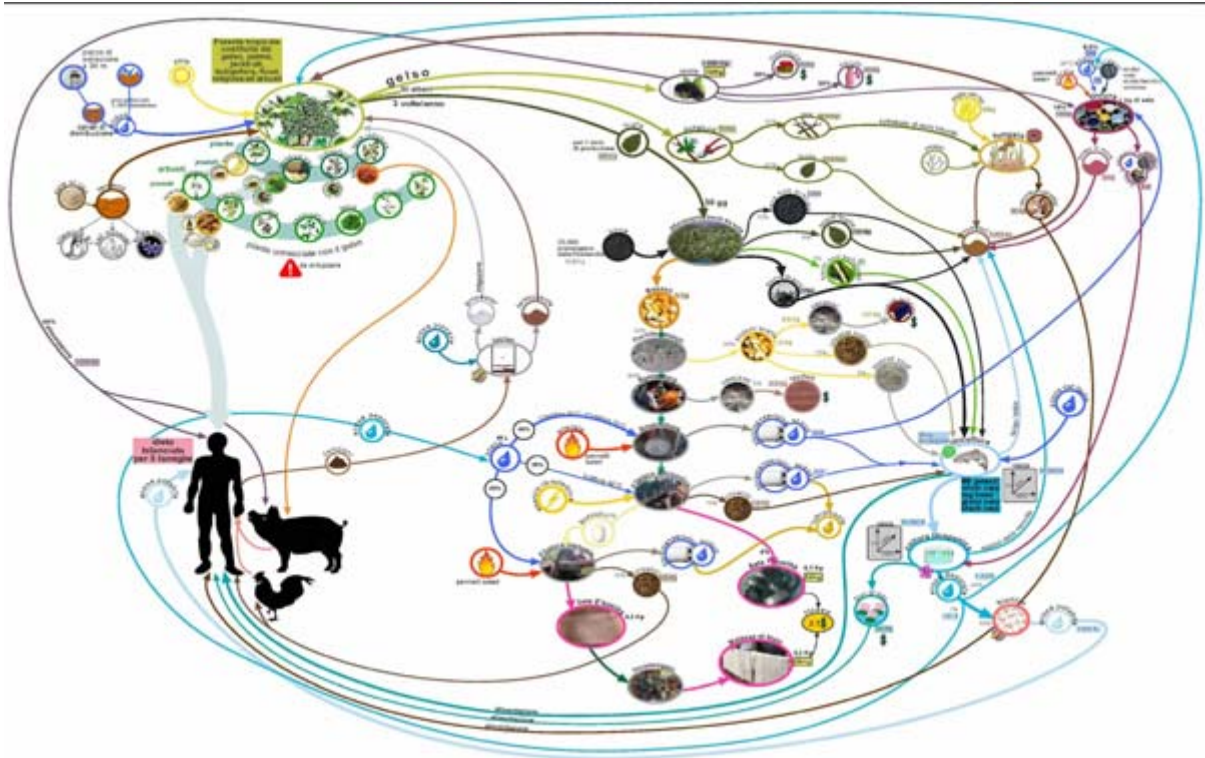
The first step was to find information on historical and cultural characteristics of the country and economic resources available to the natural population; was subsequently analyzed the birth and development of silk with particular attention to its use in Laos as well as all hints traditional Italian.

Later it was analyzed the life cycle of the silkworm and techniques necessary for breeding together his methods of propagation and cultivation of mulberry tree, then we moved to deepen the process of silk and its characteristics.

At this point thanks to foreground has passed to consider the two activities already in the area, identifying the critical and proposing possible improvements.

Specifically the project of S.F.E. concerns silkworm rearing and the production of silk in the village of Ban Kapeu in the district of Thateng, province of Sékong.

The objective is to create a collaborative project between the above and the Silk Home.

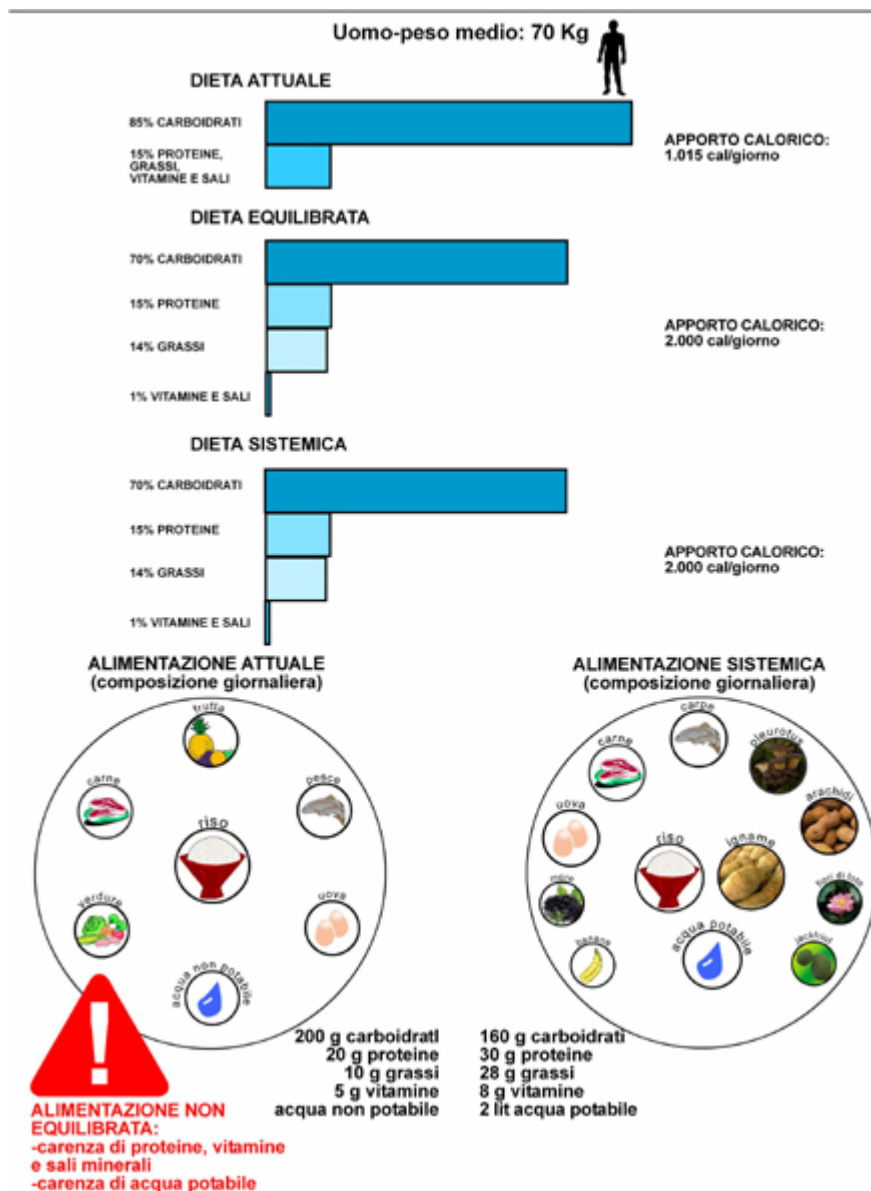


Chain of silk: systemic vision in the farm and in the village of Ban Kapeu

The silk productive cycle inside Ban Kapeu farm, has been redesign in a systemic view, where output get from criticity and through the passage in the five kingdoms became new input reinsert within the system.

The actual silk production, in the Ban Kapeu farm and village, changes over a linear model, where risoces and wastes were throw away and in consequence eliminated, to a systemic model of production, inspired by dynamics of natural model working, the system par excellence.

The setting becomes of crucial relevance, in so far thanks to systemic vision give more value to social resources: men, their culture and raw material, aiding to solve local peoblems. For this reason the principal goal of the project is have a productive chain for the benefit of villagers.



Current and systemic diet

That gives on one side to grow rich population diet with new foods, as fishes, algae, mushrooms, eggs, lotus flowers, and most importantly drinking water. As well as to give economic benefit in direct selling of products in excess on local market. Not only people but also land makes profit, because the deforestation process and the soil impoverishment, become a consociation cultivation where plants can recreate main characteristics of rain forest, with natural fertilizer. Also life quality for villagers will result improved, thanks to piling human and animal droppings, source of illnesses and infections, the first cause of mortality for children from 0 to 5.

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