

Honors thesis

POLITECNICO DI TORINO

COURSE OF SUSTAINABLE DESIGN

Abstract

Title Yunhu Low Carbon Model Town Guidelines

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This thesis analyzes the study conducted by the research group of the EC2 project (Europe-China Clean Energy Centre), which as part of an international partnership, was intended to help the Chinese government in the organization of some pilot cities, low carbon model, paying attention to energy and environmental issues in the economic development of the plan.

The thesis developed in a design project, situated in the case of study, the city of Lianyungang, organizing an urban plan for the 23 square kilometers of Yunhu model district. The goal is to provide new strategies based on the data, considering the needs of the different actors involved in the project.

In fact, the result of the research team, considers it a priority to achieve high performance standards, often very difficult to obtain, both technically and from the economic point of view.

In addition to these problems, they not focus on the morphological context of the project area, raising doubts about the possible impact and involvement of the local population.

The answer to these different needs, has resulted in the creation of a technical-design system, capable of contributing effectively also in economic terms. Starting from the urban context, it is realized an energy network, able to connect and unite the various systems, in order to overcome the demand of each activity, through the product in excess of the other.



After that, the same method was also thought for the individual cells, studying specific strategies aimed at increasing the efficiency of the resources used and to exploit the excess production of each activity.

Several topics paying particular attention to the delicate "energy and economic ecosystem" that is created. The city is conceived as an organism that lives in perfect synergy with each part. On the opposite side, each cell must be more self-sufficient as possible, ensuring their sustainability, and help the next level, wherever possible.

Useful elements, were the previous examples of similar interventions, which have provided valuable clues for research, avoiding the recurrence of similar problems. This survey, wants to give a possible interpretation of a compatible development between economy and ecology, giving the chance to reflect on issues arising from the construction and the future of these cities, providing information about possible policy and future projects.

